

**CONSOLIDATION AND TRANSFER OF KNOWLEDGE
AND EXPERIENCE GAINED IN THE DEVELOPMENT
AND IMPLEMENTATION OF WATER AND RELATED
POLICY IN SOUTH AFRICA**

DJ Roux • HM MacKay • L Hill

WRC Report No. 1295/1/06



Water Research Commission



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SOUTH AFRICA**

Report to the
Water Research Commission

by

DJ Roux*, HM MacKay and L Hill* (Editors)**

*CSIR Environmentek
**Water Research Commission

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The Project Team consisted of:

Dr Heather MacKay, Water Research Commission
Dr Dirk Roux, CSIR Environmentek
Prof Christo de Coning, School of Government, University of the Western Cape
Ms Liesl Hill, CSIR Environmentek
Ms Tamsyn Sherwill, Centre for Water in the Environment, University of the Witwatersrand

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Ms Carin Bosman, Northwest University, Potchefstroom Campus
Dr Henk van Vliet, Department of Water Affairs and Forestry
Mr Bill Rowlston, Department of Water Affairs and Forestry
Mr Harrison Pienaar, Department of Water Affairs and Forestry
Mr Mike Warren, Department of Water Affairs and Forestry
Mr Haroon Karodia, Department of Environment Affairs and Tourism, KZN
Mr Mbangi Nephumbada, Department of Water Affairs and Forestry

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Executive Summary

Background and objectives

South Africa has developed progressive, far-reaching and technically sophisticated water policy, which reflects an advanced understanding of the principle of sustainable development. However, without appropriate capacity to implement the policy in the long term, little is likely to change for the better on the ground. Effective policy implementation depends on a mix of technical knowledge, social skills, and experience of how things work in the real world. The enormous need for developing the capacity of people in order to effectively respond to the implementation challenge is frequently expressed. This need essentially translates to a need for increasing our capacity to learn. We argue that the water institution will either have to improve its learning capability or yield to sub-critical capacity and inability to master the challenge of sustainable development.

The cycle within which policy undergoes major revision and reform, followed by implementation and review, could be as long as 20-30. Few people that are working in a particular field (such as water) of the policy arena are exposed to more than one substantial review during their working lives. Also in terms of the shorter cycles of monitoring and review, continuity is often lost through people shifting their professional focus, moving to other organisations or sectors, or retiring. The natural tendency for knowledge gained through involvement in policy processes is to dissipate to the extent that it is unavailable as a resource for the next generation of policy makers.

The overall aim of this project was to reflect on policy developments that took place over the past 10 years (1994 to 2003) in the water field, and to consolidate and package at least some of the learning in an explicit form for wider sharing or communication as well as retention of such knowledge in the institutional memory. In essence, it was endeavoured to extend the "paper trail" by capturing the insights, anecdotes and stories related to the policy process that would normally have a small chance of being documented. The formal objectives of the project were to:

- capture and consolidate knowledge and experience gained in several recent policy developments and R&D processes related to sustainable water resources management
- provide guidance for future leaders in how to establish and manage policy development and implementation processes
- provide guidelines for training and enhancing the capacity of people who are or will be responsible for policy development and implementation.

The outputs agreed to before commencement of the project were:

- a consolidated report (this report)
- a series of issues papers
- a core group of South Africans who have had their own capacity enhanced
- guidelines and a framework for training and enhancing the capacity of people in middle and senior management who are involved in policy development and implementation.

Project approach

The project focused on two primary activities to achieve its objectives. First, a number of issues papers were selected to capture lessons from various policy development and implementation experiences to date. The idea was to contribute to an explicit as well as peer-reviewed record or archive of lessons, to enable wider sharing of lessons amongst current practitioners as well as to ensure that these lessons are available to future generations of practitioners. Through a series of workshops with various specialists and policy practitioners, three priority areas were identified to guide the selection of issues papers (see Chapter 2), namely:

- analysis of the water policy development process in the context of the generic public policy cycle and principles
- development and dissemination of technologies and programmes that would enable policy implementation and realisation of policy intent
- capacity and institutional aspects, including kinds of capacity required to manage policy processes.

Second, a training course, later referred to as a professional seminar, was developed and presented to facilitate knowledge sharing in an interactive setting. Four main themes were addressed in these seminars, namely:

- generic frameworks for public sector policy development, implementation and evaluation
- application of generic frameworks to water policy
- effective implementation of policies and programmes: planning, monitoring and evaluation, institutional capabilities, and logistics
- options for continuous revision and improvement.

Series of issues papers

Six issues papers were produced (see Chapter 3) as part of this project, namely:

- MacKay, HM, Rogers, KH and Roux, DJ (2003) Implementing the South African water policy: Holding the vision while exploring an uncharted mountain. *Water SA* 29 (4): 353-358.
- MacKay, HM and Ashton, PJ (2004) Towards co-operative governance in the development and implementation of cross-sectoral policy: Water policy as an example. *Water SA* 30 (1): 1-8.
- Roux, DJ (2004) From Monitoring Design to Operational Program: Facilitating the Transition under Resource-Limited Conditions. In: Wiersma, G. B. (Editor). *Environmental Monitoring*. CRC Press, Boca Raton, pp 631-648. (ISBN: 1-56670-641-6).
- Roux, DJ, Biggs, HC, Rogers, KH, Sergeant, A and Mercier, JR (Submitted) Bridging the science-management divide: Moving from so-called knowledge transfer to collaborative learning. Manuscript submitted to *Ecology and Society*, September 2004 (see <http://www.ecologyandsociety.org/>).
- De Coning, CB and Sherwill, T (2004) An Assessment of the Water Policy Process in South Africa (1994-2003). WRC Report No Report No TT 232/04. Water Research Commission, Pretoria. A shortened version will be submitted to *Journal of Water Policy*.
- De Coning, CB (In Prep) Policy implementation in the South African public sector: Towards lessons of experience for the water sector. This paper is being completed for submission by the end of 2004 to a journal such as *Administratio Publico*.

A strong message from these papers is that sustained leadership, sound technical knowledge, the ability to plan (and re-plan) and facilitate a participatory process, good, clear communications and an adaptive, learning culture supported by continuous evaluation and adaptation are the key ingredients which have helped South Africa successfully adapt its water policy to meet the demands of our new democracy. Neglecting any one of these elements will jeopardise success.

Training course/ seminar

The development and presentation of a training course (later referred to as a professional seminar) was seen as a primary vehicle for achieving knowledge transfer and capacity building regarding policy development and implementation. The seminar was developed jointly between the WRC, CSIR Environmentek, Wits University (School of Public Development Management) and the Department of Water Affairs and Forestry. Two seminars, each running over three days, were presented during the course of the project.

A total of 57 people participated in the seminars that were presented for free. The overall feedback from participants (see Appendix B) indicates that the objectives of the seminar were achieved to a high degree. Detailed synthesis of the lessons learned and guidelines for the continuation of such a policy forum are presented in Chapter 4 and Appendix B.

Building a learning capability

The term "capacity building" is somewhat over-used in South Africa today, yet the importance of ensuring the capacity for implementation of new policy is readily recognised. In Chapter 5 we provide several definitions related to the concepts of capacity, capacity building, institutional capacity and organisational capability. In the context of policy development, implementation and review, we view capacity building as a total (structural, functional and cultural) transformation of government in order to mobilise all available resources to achieve policy objectives. We emphasise the importance of the human element in overall capacity, as it is ultimately humans that make decisions, build new relationships and change behaviour. A key outcome of successful capacity improvement is to enhance people's "capacity for informed action. This human capacity [for informed action] comes about through the integration of information derived from data, plus theory that puts the information in the proper context, plus experience of how things work in the real world. The process of integration is also called learning; hence the need for a strong focus on our ability to learn – we essentially have to learn how to learn as an institution.

Chapter 5 suggests an approach to instituting a learning capability specifically related to policy development, implementation and review. A major intervention is required to cumulatively build a sustainable capability, as opposed to having sporadic surges and subsequent losses of capabilities as we go through cycles of higher and lower priority. In practice, these considerations can be given affect to in a properly constituted and managed R&D programme, with the aim of developing and maintaining a core capability for policy development and implementation in the water sector. By following a learning-by-doing approach, such a programme should facilitate a partnership between those involved with the development of a theoretical discourse and a community of strategic as well as operational practitioners.

General recommendations and conclusions

It is recommended that two parallel interventions be initiated and maintained within the professional water sector:

- Firstly, an ongoing programme of training and capacity building in generic public policy management, aimed at developing capacity in people entering the water sector in early or mid-career. This should be designed within a framework which addresses the different knowledge needs of line managers, strategic policy centres and specialists. This intervention would be focused more on improving generic policy processes.
- Secondly, a vehicle for stimulating high-level debate and action related to the content and impact of water policy. The institutional "home" for such a vehicle needs to be identified: there are advantages and disadvantages to locating this either within a government agency or as a less formal network outside an agency. This intervention would be focused on examining policy content, initiating critical review as and when necessary, and generating and analysing appropriate policy options.

In conclusion, it is hoped that the reflective linking of practical experiences with tested theories and the documentation of associated lessons, that were made possible by this project, would be of benefit to the wider policy and water resource management fraternities of the current as well as future generations.

Chapter 1 – Introduction and Objectives of the Project

Heather MacKay

1.1 Rationale for the project

Socio-economic development and alleviation of poverty in Africa depend to a very large degree on the sustainable management and utilisation of natural resources, and the most critical natural resource must arguably be water, closely followed by soil. Water is only one component of a functional ecosystem, and aquatic ecosystems are the resource base from which water, and the water-related services on which people rely, are derived. Many countries in Africa have recently adopted far-reaching and forward-thinking policy or legislation which reflects this understanding, but unless there is capacity to implement such policy in the long term, little is likely to change for the better on the ground in Africa.

South Africa's national water policy of 1997 and its supporting legislation, the National Water Act of 1998, are recognized internationally as being amongst the most progressive initiatives in the world today, in the global move towards sustainable management of natural resources. This policy and legislation clearly establish a new kind of vision and a radically different way of conducting the business of natural resource management that will take this country into the next century. It is understood that South Africa is taking the first bold steps along a path that may well provide a model for many other countries in the world to shift and adapt to the newer realities of managing scarce natural resources, in an environment which is uncertain and continually changing, influenced by global, regional and localized processes. The policy and legislation are far more sophisticated and complex than anything which existed previously; the implications for the roles of government, civil society and professional service providers are profound, and are not yet clearly understood by all parties. The long term success of the new policy depends to a very great degree on our ability to understand the long term needs, and to build and deliver the capacity to sustain this new trajectory.

The Water Act requires the Department to act as custodian of resources in the public trust. The Department will also be required to move towards more participatory resource management in a multi-stakeholder environment. These two factors together introduce some new and complex challenges for Department officials, acting in the public trust in a multi-stakeholder, multi-issue context.

Generally, the role of government in policy implementation is expected to be different in a developing country than in a developed country. In developing countries, institutional capacity at levels lower than national government is often weak, if not lacking altogether, though community-based organisations may be active, if fragmented. There is a need to understand how this situation, which is true for South Africa as well as many African countries, determines the role which national government does or should play in policy development and implementation, and in decision-making processes related to use and management of natural resources.

1.2 Political change and policy reform in South Africa

A number of factors contributed to the development of South Africa's sweeping new water policy and water legislation. During the early 1980s, real data from the national water quality monitoring networks which were established from 1970 onwards began to offer concrete evidence for the steady, and in some areas rapid degradation in the quality of water resources in South Africa. At the same time, world concern regarding environmental issues and sustainable development was becoming more urgent. Added to this were the astonishingly

rapid political and social changes in South Africa, which introduced a suite of new and complex values into decision making around resource utilisation and management. The way was cleared for an almost total revision of water policy and legislation, in a relatively short period of time compared to similar reform processes in other countries.

The previous major legislative process (in relation to water resource management) was the passing of the Water Act of 1956. Very few records or documents are available which can give insight into the thinking behind the drafting of that legislation and subsequent regulations and policy such as the General and Special Effluent Standards, and the introduction of the Receiving Water Quality Objectives approach. The lack of a "paper trail" meant that many of the insights, which were part of the technical discussions in those years, were lost as people retired or left the field.

This latest round of policy and law reform has been compressed into a period of some 15-20 years in South Africa (in comparison to 25-30 years in some developed countries), and now an ideal opportunity is afforded to document the thinking behind the process: why certain decisions were made, what the reasons were behind the wording of particular sections of policy and law, what was the vision of those who were involved in the technical drafting. As South African and world society changes over the next 50 years (assuming that is the approximate lifetime of the new legislation) values and priorities will change, climate and ecosystems will change; policy and law may also need to change. We hope that the next generation of water managers will benefit greatly from having a detailed record of the technical development of water resources management policy of the 1980s and 1990s.

1.3 Project objectives and deliverables

The original objectives of this project, as indicated in the Memorandum of Agreement, were to:

- capture and consolidate knowledge and experience gained in several recent policy developments and R&D processes related to sustainable water resources management
- provide guidance for future leaders in how to establish and manage policy development and implementation processes
- provide guidelines for training and enhancing the capacity of people who are or will be responsible for policy development and implementation.

During the course of the project, the approach followed to achieve the above objectives was adapted and refined a number of times (see Chapter 2). However, the formal outputs of the project remain the same as agreed to in the initial Memorandum of Agreement, namely:

- a series of issues papers (see Chapter 3)
- a consolidated report (this report)
- a core group of South Africans who have had their own capacity enhanced (see Chapter 4)
- an approach and framework for training and enhancing the capacity of people in middle and senior management who are involved in policy development and implementation (see Chapters 5).

1.4 Background to the project

The political changes which have taken place in South Africa during the last decade have had profound impacts on the development of new water policy, and have opened the way for significant shifts in policy and legislation generally, in relation to sustainable management of natural resources. The South African water policy is considered to be very progressive, and one of the best examples internationally for sustainable management of resources. The influence of international thinking at the time, embodied in documents such as Agenda 21 and the Dublin Principles, can clearly be seen in the content of South Africa's policy as well as legislation related to sustainable management of water resources.

It is relatively sophisticated, yet it must be implemented in a developing country context. The implementation context will strongly influence the future development and strategic direction of water policy in South Africa, but there is still limited understanding of the inter-relationships between policy development and implementation, with the added shaping forces of politics, economics and social factors. This project aimed to provide, through critical review and analysis, an understanding of where we have come from and where we are going to in terms of water policy, in order to support ongoing development and implementation throughout this and future policy cycles.

The development of policy at national or provincial levels is a process that requires a high level of integration, influenced as it is by political, economic, social, technical and ecological issues. Many people, particularly those in government agencies, who become involved in policy development processes are trained in one or other of these disciplines, but have not been formally trained or equipped with the basic skills and knowledge to manage high-level policy processes, instead finding their way by trial and error. There is a high risk of good policy failing or being rewritten before its implementation reaches full maturity, due to a lack of people with the capacity and high-level skills to manage implementation processes. Yet policy development, implementation and review processes can be made much more effective, efficient and sustainable if there is prior knowledge of and provision made for certain important issues, amongst them:

- the role of national, regional and global politics and economics in natural resource policy development
- the role of science and scientists in such processes.
- the interdependence of policy development and implementation, research and development and technology development and implementation
- appropriate and skilled leadership and guidance
- innovative communication strategies and appropriate packaging of information to serve the process
- reliable fact-finding and generation of shared information
- ways to deal with and incorporate uncertainty into planning and implementation processes
- multi-institutional and multi-party partnerships for collaboration and co-creation of policy
- understanding of policy implications and strategic planning for implementation of policy
- the organisational environment needed for policy development
- the organisational environment into which the policy will be delivered for implementation.

The cycle within which policy undergoes major development or revision, followed by implementation and review, can be as long as 20-30 years (given stable political conditions), which means that people working in the policy arena in one field (such as water) are seldom exposed to more than one substantial review of policy within their working lives. As the South African water policy in particular moves into the first phases of implementation, some of those people most closely involved in its development and early implementation are already moving on to other processes or fields. The knowledge gained may thus be dissipated and eventually be lost to the next generation of policy makers. Hence it was considered to be important and

urgent to capture the experience and knowledge gained in recent policy processes in South Africa - this knowledge is an extremely valuable resource for the country, and should be consolidated and packaged in such a way that it can be utilised for the training and development of future leaders in water resources management.

1.5 The value of reflection

The members of the core project team have themselves been involved in South Africa's water policy development process since the early 1990s. Most of us came into the process from a technical perspective; few, if any, of us had any grounding or basic training in public policy and the social and political contexts in which public policy is developed and implemented. The opportunity afforded to us and through us to other members of the water sector, to reflect back on a process which was at times extremely difficult and seemingly chaotic, has led to a much deeper understanding of the generic public policy process, in all its complexities. Through this project, we have endeavoured to make this understanding explicit, so that it can be communicated more widely, to those who are still closely involved in ongoing policy development, implementation and review, as well as to the next generation of policy-makers.

Chapter 2 – Research Process and Capacity Building Strategy

Dirk Roux and Heather MacKay

2.1 Introduction

The motivation for this project has always been to capture or make explicit some of the experience gained during the policy development and implementation process of the past decade. This type of experience typically remains in a tacit form (the concepts, images, beliefs, viewpoints, value sets and guiding principles that reside in individuals/ in the minds of people), and is available whenever and wherever the people that possess this experience are present. Tacit knowledge can be passed on through narrative sharing and apprenticing. However, there is the risk that such knowledge will erode away with people, especially during times of relative high mobility of professional staff.

In order to retain experience within an institution and to allow free sharing of tacit knowledge, it has to be converted into an explicit form. The main motivation behind producing a series of issue papers was essentially to convert some of the tacit knowledge, that was generated in the South African water institution during the past decade, into an explicit form so that it would remain available as part of the institutional memory.

The themes for, number of, and approach to compiling issue papers have evolved significantly since inception of the project. Originally, it was intended that the project approach be workshop-based, with the intention of inviting key role players from the various policy processes to thematic workshops to analyse and discuss various pre-selected themes in depth. The intention was to expand the outcomes of the workshops to, in collaboration with selected workshop participants, by compiling issues papers. The intended research method would have been approximately as follows:

- selection of various policy or R&D processes as case studies
- identification of key issues influencing policy development and/or implementation
- for each issue, run a small discussion group of four to five people to analyse the issue, identify other people with directly related experience and invite them to a workshop, prepare starter documentation for the workshop
- run a broader workshop on the issue, to obtain insights from a wider group of people, and document the discussion
- prepare one or two issues papers on the basis of the documented discussions at the workshop.

For various reasons, as discussed in more detail below, the project team recommended a significant change in approach. This chapter documents the adaptations made to the research approach during the course of the project.

2.2 Series of workshops

The approach and focus followed in the project were shaped by a series of discussions and workshops, whereby the views of specialists external to the project were sought. The following section presents the main events that contributed to defining the project approach.

2.2.1 Discussion group of 4 February 2002

On 4 February 2002, a discussion group was held in Pretoria, attended by Dr MacKay and Dr Roux of the project team and Prof Michael Clark (University of Southampton) and Ms Emma Treby (Oxford Brookes University). It was hoped that the UK collaborators would be able to obtain funding in their home country to support their participation in the project, but their attempts were unsuccessful.

The purpose of the discussion group was to attempt to:

- identify and prioritise the key issues influencing policy development and implementation
- identify potential themes for a subsequent project workshops (August 2003)
- identify potential issues papers
- assign responsibilities to individuals for leading discussions, workshops and issues papers related to specific issues.

Figure 2.1 indicates the priority issues that emerged from the discussion group. These issues were (name of suggested lead person in parenthesis):

- Interfaces, such as how to address the science-management interface, the policy-management interface, and cross-sectoral interfaces such as agriculture-water, urban development-water, and so on (MacKay)
- Capacity and logistics (particularly related to implementation) (Schrijver)
- The role of science and technology in policy development and implementation (Clark)
- Networking and collaboration for policy development and implementation (Roux)
- Participation and representation in policy development and implementation (Treby)
- Knowledge flow and management in the policy cycle (Clark)
- General synthesis of all the above issues (MacKay).

2.2.2 Workshop of 12 August 2002

The broad themes and issues identified during the February 2002 Discussion Group were used as the basis for an agenda for this workshop, which was held in August 2002 in Pretoria. The workshop participants included only the members of the core project team and Mr Huub Schrijver (Schrijver Consensus Strategy Management) from the Netherlands.

The purpose of the workshop was to explore in more detail the themes that were initially proposed (see Figure 2.1) or to modify these, in order to design the project work programme, schedule events and deliverables, and assign responsibilities. Deliverables of the workshop were originally listed as:

- refined "map" of the project and themes
- title and description of the theme for each of five thematic workshops (in effect a short briefing document for each workshop), which could serve as background information for participants, and as a starting point for an issues paper
- identification of leaders for each workshop
- possible titles of issues papers and lead authors of each
- possible dates for thematic workshops
- list of people to be invited to each workshop, or to be interviewed one-on-one if they cannot attend the workshop
- assignment of responsibilities for the consolidated report and training guidelines
- detailed project budget.

The outcomes of the workshop are described below, and reflect discussions which extended beyond the actual workshop itself, but which led to a proposal to significantly revise the approach and some of the deliverables for the project.



Figure 2.1 Proposed workshop themes identified during the meeting of 4 February 2002.

List of potential issues papers

- general overview and synthesis of all the issues raised (MacKay to lead)
- networking & collaboration
 - co-operative governance in cross-sectoral policy implementation (MacKay to lead)
 - public-private partnerships for policy development & implementation (Roux to lead)
 - establishing partnerships
 - achieving and measuring solidarity
 - power and responsibilities in partnerships
 - Ukuvuka, Business Against Crime, Mvula, RHP, industry/government
 - implications for CMAs
 - networked for virtual government
 - creative configuration of knowledge entities
 - de-emphasising organisational boundaries
 - strategic policy unit for SA (MacKay to lead)
- knowledge
 - reflection and strategic review in the implementation process (Roux to lead)
 - use of knowledge in policy development & implementation (Vos to lead)
 - borrowing knowledge from other sectors
 - specialist/ technical versus policy general
- capacity and logistics
 - proceeding from flirtation to commitment in implementation (Roux to lead)
 - identifying implementation drivers

- lessons from RHP
 - training and capacity building for policy development and implementation (MacKay to lead)
 - incorporate learning from courses
 - nature of training (experiential versus coursework)
 - technical versus policy
- interface issues / understanding policy (MacKay to lead)
 - what is policy, generic cycle of public policy
 - links to science and management
 - development & implementation
- role of science in policy (Vos to lead)
 - scientists in government
 - IKS and interaction with formal science
 - science-policy-management cycle
 - links and lag between research and application
- participation (Treby to lead).

Case studies

It was suggested that the issues papers draw from the experience gained through the development and implementation of:

- the national water policy development and implementation processes
- the River Health Programme
- Ukuvuka, a multi-institutional initiative related to fire prevention in the Western Cape, which provides an innovative example for policy development and testing.

Revised capacity building strategy

One of the core imperatives of the WRC is to build capacity in the country for sustainable, equitable management of water resources, using research projects and programmes as the primary vehicles. Thus all WRC-funded research projects are required to include capacity building as a key objective. The WRC recognises three different levels of capacity building, one or more of which should be addressed during project planning, execution and reporting, namely:

- providing opportunities for graduate students to undertake supervised research within WRC projects, ideally for postgraduate degree purposes
- building organisational capacity e.g. in a group or directorate in DWAF
- building the capacity of communities of stakeholders e.g. in a village or in a water user association.

By the time of the August 2002 workshop, it had not been possible to find a graduate student or students from within the water sector who would be interested in and capable of working in the policy field. This led to the suggestion to revise the capacity building strategy to rather allocate appropriate budget to running two training courses for middle management professionals in the water sector, to transfer the knowledge gained by the core project team members more widely and thus contribute to development of capacity within the water sector for policy development, analysis and implementation.

The courses were designed to be three days long, and were intended to provide participants with an overview of the generic public policy management cycle, with in-depth treatment of issues related to policy development, policy analysis and policy implementation, all drawn from experience and from knowledge gained during this project.

Prof Christo de Coning of the Wits School of Public & Development Management (currently School of Government, University of the Western Cape) agreed to facilitate presentation of these courses. The first course was held during May 2003 and the second course during February 2004 (see Chapter 4 for more details).

Revised project approach

It was quickly realised that the people whom we would want to participate in the issues workshops were not likely to be available together for one or more days at a time, and that a workshop-based process might not be the most efficient way of drawing on the collective wisdom and experience of these people. Hence the project approach was revised, to allow the leaders of each issues paper to rather discuss issues one-on-one with certain senior role players in the water sector and other people from outside the sector with relevant experience in policy development and implementation. This would allow more time to be given by the leaders to reading and preparation of the issues papers, which was considered to be more cost-effective than holding workshops and discussions with the key role players in a group context.

Prioritisation of issues papers

As was expected, the list of potential issues papers was quite diverse, reflecting not only the diversity of experience within the project team, but also the diversity of issues that need to be considered in any large-scale policy process. There was concern that the diversity and number of issues papers would lead to insufficient focus, and hence inadequate depth of detail and insight in each of the papers if the full list was used as the basis for a work programme for the project.

After discussion within the project team and with Prof de Coning, it became clear that the most significant learning to have emerged in the early phase of the project was the knowledge related to management of generic public policy processes, including policy development, policy analysis and policy implementation. There was a general feeling that if this knowledge, located largely in the field of public management and business management, could be integrated with the water-specific technical knowledge held within the project team and amongst the key role players in the water sector, then the resulting transfer of information and insight could add great value to policy processes within the water sector, and would be much more effective in meeting the project objectives than the originally intended series of wide-ranging but relatively superficial issues papers.

Hence it was decided that the project should focus on the following aspects of public policy, with specific reference to the three selected case studies. One or more issues papers will be devoted to each of these aspects:

- the generic public policy cycle, and analysis of the water policy development process in relation to this generic cycle
- including tools for policy analysis and quantitative/qualitative policy evaluation
- including policy research, and how to design and implement policy research programmes
- development and dissemination of technologies and programmes that would enable policy implementation and realisation of policy intent
- capacity and institutional aspects, including the kind of capacity needed to manage policy processes, how to effectively mobilise and train people to develop and implement policy, and models for organisational and functional design of institutions to support sound policy management, including development, analysis and implementation.

2.2.3 Policy analysis workshop of 7 February 2003

The project team plus Mr Bill Rowston (DWAF Strategic Planning), Mr Johan van Rooyen (DWAF Project Planning) and Prof Christo de Coning (Wits School of Public & Development Management) participated in the workshop. The objective of the workshop was to reflect and critically analyse the water policy development and implementation process to date. The actual events that took place in the water sector were compared with theoretical models from the field of public policy.

The outputs of the workshop are summarised in Appendix A. An important outcome was that the workshop emphasised some of the practical challenges that implementation agencies are faced with, and these in turn influenced the focus of some of the issues papers. As examples, it was clear that there is a major need to understand what effective policy implementation is about, as well as to clearly see the various phases of policy development in the structural and functional context of the bigger water institution.

2.3 Final project plan

The final titles of issues papers that were settled on are (see Chapter 3 for an integrated synthesis of all papers):

- Implementing the South African water policy: Holding the vision while exploring an uncharted mountain.
- Towards co-operative governance in the development and implementation of cross-sectoral policy: Water policy as an example.
- From Monitoring Design to Operational Program: Facilitating the Transition under Resource-Limited Conditions.
- Bridging the science-management divide: Moving from so-called knowledge transfer to collaborative learning.
- An Assessment of the Water Policy Process in South Africa (1994-2003).
- Policy implementation in the South African public sector: Towards lessons of experience for the water sector.

The development and presentation of a training course/ seminar was seen as a primary vehicle for achieving knowledge transfer as well as capacity building regarding policy development and implementation. The seminar was developed as a joint initiative between the WRC, CSIR Environmentek, Wits University (School of Public and Development Management) and the Department of Water Affairs and Forestry (DWAF). Active involvement of Messrs Bill Rowston and Johan van Rooyen and Mrs Barbara Schreiner from DWAF ensured that the course was designed to be relevant to departmental staff. The development and current status of the seminar is discussed in Chapter 4.

Chapter 3 – Synthesis of Issues Papers

Alex Weaver, Dirk Roux, Christo de Coning and Heather MacKay

3.1 Introduction

Political transformation in South Africa over the past ten years has been hailed by many as being near miraculous. Underpinning this transformation has been a far reaching reappraisal and overhauling of a wide variety of policies, laws and regulations. A new constitution and over 780 pieces of legislation have created a framework for reshaping South Africa¹.

In a water scarce country like South Africa, access to water becomes a key indicator of social equity. The water sector took full advantage of the opportunity for change afforded through South Africa's reform process. Fundamental changes in the country's Water Act were promulgated in 1998; this marked a shift in ownership and control of water resources from private land owners to the state. "Some, for all, forever" was the catchy slogan used to express our goal of ensuring sustainable use and management of this resource. The resultant water policy has received widespread international acclaim.

In recent years the South African government has shifted the emphasis from one of intent through policy and laws to one of delivery through implementation actions and measurable impact. It is a fitting time to take stock and review our progress over the past 10 decades recognising that although our policies and strategy might look good on paper, we still have a long way to go in terms of implementation.

The six contributions in this series of issues papers reflect on key lessons learnt over the past decade during the policy development and implementation process that has guided South Africa's water sector across the "Rubicon". A considerable paradigm shift has occurred in the country and the authors identify the key factors which have allowed the water sector to respond appropriately as well as some of the key challenges which the country still faces in providing some water for all for ever.

The papers cover issues ranging from the importance of clear goals and a well articulated vision in providing the clarion call for change, the desired leadership attributes needed in the Water Sector – the nature and extent of knowledge needed to underpin change, the need for a sound technical foundation to policy, overcoming the difficult challenges of co-operative governance and some of the challenges we currently face in turning policy into action.

A synthesis of each of the six papers as well as detailed references that will allow interested readers access to the complete documents follows. Thereafter we provide a brief overview summary of the key points arising from these six papers.

¹ <http://www.info.gov.za/towards10years/review/documents.htm> Towards Ten Years of Freedom

3.2 Issues papers

3.2.1 Mountaineering approach to policy implementation (Paper 1)

MacKay, HM, Rogers, KH and Roux, DJ. 2003. Implementing the South African water policy: Holding the vision while exploring an uncharted mountain. *Water SA* 29 (4): 353-358.

Available online at:

<http://www.wrc.org.za/publications/watersa/2003/october/1535.pdf>

The vision for water management in South Africa is considered internationally to be progressive as well as ambitious. Achieving this vision will require dramatic changes in the way water resource managers conduct their everyday business. We will need new institutions, new management instruments, new mindsets, and a robust implementation plan to see the water policy through to a fully mature form over the next twenty plus years.

While the vision itself is explicit and attractive, the question remains: With limited human resources, limited finances, limited expertise and limited water resources, how will and should we move from the old to the new over the decades to come? This paper proposes a strategic, stepwise, adaptive approach to policy implementation, which equates to learn-by-doing. To demonstrate key learning points, a metaphor of a mountaineering expedition is used.

We have a vision of the top of the mountain that we want to climb, but the route is uncharted and the weather can change unpredictably. Although impatience and eagerness might tempt us to reach the top in one "big jump", this is likely to be followed by a "big fall" back to the bottom. Installing new processes, new systems and new ways of thinking only becomes stable if allowed time to mature with testing, reflection, review and ongoing improvement.

Developing the mountaineering metaphor, five mountaineering rules are offered, to guide the implementation process:

Rule 1: Get as good a view of the summit as possible. At the highest level, the vision is paraphrased by: "Some, for all, forever". This translates into, for example, needs for equitable division and allocation of water, sufficient protection to ensure sustainable delivery of ecosystem services, and effective cooperation at various spatial scales to promote a coordinated implementation drive. Many of these necessary conditions are unprecedented in nature and their implications cannot be comprehended in full detail beforehand. However, studying the options at conceptual and philosophical levels is important to mentally prepare for the real thing. Secondly, it is very easy to get distracted by immediate urgencies and to lose sight of the ultimate aim. The mental picture of the summit must be sufficiently ingrained to ensure that there is no premature stopping, for example when a comfortable position or a very demanding stage is reached.

Rule 2: Take care to assemble the right team. When picking your team, make sure you include the right blend of roles, skills and experience – the expedition leader, camp cook, reliable porters, and specialist climbers for rock, ice and snow surfaces. In water resource management, the necessary blend of expertise cannot be provided by DWAF alone. No matter how high the level of enthusiasm, participants from the private sector, academia and other government agencies (at national, provincial and local spheres) will have to be co-opted on the team.

Rule 3: Consolidate one step at a time. Establishing a camp as a firm anchor at the beginning (and end) of each stage promotes safety since the degree of possible fallback or regression is limited to the previously established stage camp. Implementation agencies should be open and explicit about setting interim goals. Achievement of these goals is essential to keep their teams

motivated and to demonstrate to others how to proceed. Without short-term victories or gains, followers may be lost and momentum may turn into resistance. When a team only focuses on the final destination, they may become disheartened when it seems that they will never reach this goal. Further advantages of the step-by-step approach are that it is less threatening to those who still stand sceptical of the new vision, and it allows more opportunities for other people to become involved and participate in the process.

Rule 4: Maintain open lines of communication. Lines of communication between team members must be kept open, and various forms of communication (e.g. verbal, hand signal, tug on a rope) are used depending on the weather. Face-to-face conversations foster shared understanding and trust, which is essential since each team member relies on all the other members for the overall success of the expedition. Effective use of communication technologies such as electronic mail, video conferencing and intra- and extranets will further enhance the degree of coherence between implementation partners.

Rule 5: Explore different options before committing to a particular route. If we proceed according to sound mountaineering technique, we will establish stage camps from where to explore the terrain ahead. This relates to working with prototype tools until we understand the territory ahead. We must expect some failures – some routes will turn out to be dead-ends and we must learn from these. Understanding of the opportunities and obstacles ahead will change with every day's progress, and from one stage camp to the next. New challenges will face us all the time, as the political, social, economic and ecological environments around us change. It is essential that learning gathered along the way is fed back into improving our understanding of the task ahead and is used to dynamically refine the best road to the desired end-point.

Knowledge from both the fields of ecosystem management and business management should be used to inform the process of learning and adapting. A roadmap of an adaptive policy implementation process contains six basic steps, namely to: learn about the range of possible futures; decide which direction to move in; learn about the best trajectory for getting to the desired endpoint; design a strategy for proceeding along the chosen trajectory; take the first few steps along the trajectory; learn from monitoring, reflect and review approach.

The principles of strategic adaptive management are simple enough, but to implement these tools requires a critical mass of appropriately skilled people, a supportive environment, and implementation organisations which are appropriately designed to undertake ongoing learning and truly adaptive management. Perhaps the biggest challenge is changing the mindsets of people, both officials and water users, to participate effectively in such an adaptive learn-by-doing process.

3.2.2 Co-operative governance in the development and implementation of cross-sectoral policy (Paper 2)

MacKay, HM and Ashton, PJ. 2004. Towards co-operative governance in the development and implementation of cross-sectoral policy: Water policy as an example. *Water SA* 30 (1): 1-8.

Effective implementation of any cross-sectoral policy requires that co-operative governance processes have to be established on the ground. The more common approach to public policy is for different line government departments to develop their own strategic plans and business plans, although within the framework and in accordance with the principles and spirit of both the National Constitution and sectoral legislation derived from the Constitution. Generally, a department such as Water Affairs and Forestry would lead the development of sectoral objectives related to water resources management, and would then try to persuade or influence

agencies and role players in other sectors to align their strategic objectives and operational activities to support water sector objectives. This can be an almost impossible task, given the strong vertical boundaries between departments, and the inertia inherent in these large public sector organisations.

However, experience from other sectors provides a possible alternative model for initiating co-operative governance processes in cross-sectoral policy implementation. The approach described in this paper builds on that used to develop the policy for protection of children in South Africa. This is the reverse of the more common approach outlined above, in that the various sectors concerned first agree on a set of shared objectives, and only after that, begin to develop co-ordinated implementation plans and programmes. This approach enables policy changes in the lead sector to be matched by appropriate policy shifts in all the other relevant sectors and, in theory, helps to ensure harmonisation of policies and procedures across all the responsible agencies. If all the other sectors share the same vision and fulfil their mandate of working towards a common goal or set of objectives, implementation should be much more effective and efficient. In this way, progress would also not rely on a single department or group to lead the whole national effort.

Major challenges in cross-sectoral policy implementation

Conflicting sectoral priorities – One of the common problems with cross-sectoral issues such as water is that of conflicting priorities in the different sectors that have an effect on, or are affected or influenced by, water. Government agencies may often unknowingly work in direct opposition to each other due to a lack of high-level co-ordination and agreement on shared priorities. Such conflicts can arise through misinterpretation or misunderstanding of policy and legislation, as much as from the actual intent of policy and legislation.

Vertical boundaries between sectors – The clear separation of line functions between different Government departments (e.g. water, agriculture, housing, etc.) makes it difficult to attain proper levels of alignment and coherence between these different functions, as each department operates independently within its area of mandate, setting its strategic objectives more or less independently from other line functions. The core vision encapsulated in the Constitution becomes more "fuzzy" as the level of implementation is moved outwards from principles through policy, legislation and regulation to the lowest levels of governance, making co-operation and alignment across sectors at the lower (local) levels that much more difficult. The purpose of South Africa's current cabinet cluster system is to promote integration and co-operation across vertical boundaries, so that departments in the same cluster, in theory, should be working towards common objectives. In practice, the cluster system becomes progressively less effective from cabinet level down to operational level, largely due to persistent horizontal boundaries between different levels of government.

Horizontal boundaries between levels of government – At the level of local Government, where the key functions of service delivery have been devolved to the lowest feasible or practicable level, there is even greater difficulty in ensuring proper alignment and coherence between national and local levels, as well as between different sectors. At local level, the situation is particularly complicated by the need for some measure of additional geographical alignment or integration between local authorities, for example the different towns located along a river system or contained within a water management area (WMA). This problem is in part also caused by the difficulties experienced in 'translating' shared, but often non-quantifiable (or un-quantified), principles and policy elements into operational level delivery of specific services.

The child protection policy as a model for co-operative policy development and implementation

In South Africa, violence against children is recognised as one element of a larger societal cycle, the pathology of which is reasonably well understood. The child protection policy has been based on analysis and understanding of the cause-effect relationships that underpin the cycle of violence against children, and how the abuse of children affects society as a whole, for the express purpose of identifying each policy sector that would affect, or be affected by, the country's child protection policy. In developing the child protection policy, attention was first focused on the three priority crimes that are seen as crimes against society, and which are at the heart of the cycle of abuse and violence against children, namely child abuse and neglect, domestic violence, child and adult rape. Secondly, without confining the debate to a single sector such as justice, policing, education or welfare, the policy developers considered all the preventive and reactive interventions that would be required from the various sections of Government and levels of society in order to make a real and tangible difference in the current situation.

Despite the problems experienced with its implementation, the child protection policy model still offers a very useful conceptual framework for development and implementation of other cross-sectoral policies, such as those dealing with water. The generic elements of the model are:

- The need for stakeholders in all related sectors to identify and reach agreement on what the key priority issues are.
- At a strategic level, and based on a shared understanding of how each of the priority issues affect society, identify and clarify or confirm all the necessary types of interventions at societal, Government and local level.
- Identify and confirm the responsibilities and lead agents for actions related to the programme of interventions.
- Explicitly communicate the vision and programme of interventions to all responsible and related sectors, particularly at operational levels; make additional allowance for those stakeholders who may enter the process part-way through.
- At operational level, draw up an explicit sequence of co-ordinated implementation activities and clearly defined responsibilities for these activities according to the agreed priorities.

3.2.3 Transition from design to implementation under resource-limited conditions (Paper 3)

Roux, D.J. 2004. From Monitoring Design to Operational Program: Facilitating the Transition under Resource-Limited Conditions. In: Wiersma, G. B. (Editor). *Environmental Monitoring*. CRC Press, Boca Raton, pp 631-648. (ISBN: 1-56670-641-6).

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. The South African River Health Programme (RHP) is often lauded as an example of a programme that achieved the transition from being a good technical design to becoming an operational practice. 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 when considering that adoption and implementation of the RHP is largely voluntary and that programme implementation is taking place in an environment characterised by limited financial resources, a multitude of competing social and economic priorities and general scarcity of appropriately skilled people.

Reflecting on the successes and failures of the RHP provides an opportunity to learn about the elements that are necessary for new programmes to mature into sustainable operations. Although many factors played a role in stimulating growth, dispersal and adoption of the RHP, three elements in particular appear to be critical drivers in developing and maintaining the capacity required for implementation of this monitoring programme. The three elements are contagious leaders, flexible governance through shared ownership, and creative packaging and dissemination of key messages. This communication elaborates on the three critical drivers and alludes to how they came about in the RHP.

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 programmes spread like epidemics, the most important investment that we can make is to find and support the natural carriers of our "virus". Contagious leaders are characterised 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 resources
- 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 the 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.

Flexible governance through shared ownership

The provincial scale was selected for deploying the programme, 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. Since no single organisation in any province could boast to have all the expertise required for effective implementation of the RHP, it was up to the Champions to establish inter-organisational implementation networks.

Provinces that participate successfully in the RHP usually evolve through three distinct maturation phases, namely:

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 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 organisations.

Informal networking: Individuals join the informal network of RHP practitioners based on their perception of the value that the initiative holds for them and their organisations. 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.

Organisational endorsement: Either before or after joining the provincial network, individual members would request approval from their organisations to get involved in RHP activities. Their case is strengthened if they can show examples of what the programme produces and demonstrate how this relates to their organisational mandates. Endorsement may be in the form of incorporating RHP objectives as part of the job description of a staff members(s) and/or their organisational business plan.

Creative packaging and dissemination of key messages

With an ultimate goal of changing the behaviour of the recipients of information, river health practitioners had to rethink the formats used for packaging information as well as the strategies used for disseminating information. Three main lessons emerged from efforts to improve the effectiveness of communicating river health messages, namely to:

- Reduce the complexity of scientific messages: The RHP has made huge advances in simplifying the “front end” for communicating river health while retaining the rigour of the biological assessment process in the background. As an example, a river health classification scheme has been developed where different health classes are simply referred to as natural, good, fair and poor.
- 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-standardised formats for the packaging of river health information. The SoR products always portray a distinct RHP brand yet reflect dynamic development over time.
- Uncover and utilize tacit knowledge: Data and information that can be found in databases and reports provide important content for compiling a credible SoR report. However, these sources cannot convey context. To enrich content with context, we have to turn to tacit knowledge, which includes the concepts, images, beliefs, viewpoints, value sets and guiding principles that are based on personal experience and reside in individuals. Engagement of local scientists, farmers and community members in discussions provided valuable context regarding the history and features of a particular river.

3.2.4 Collaborative learning and shared understanding as key ingredients to building institutional capability (Paper 4)

Roux, D.J., Biggs, H.C., Rogers, K.H., Sergeant, A. and Mercier, J-R. Bridging the science-management divide: Moving from so-called knowledge transfer to collaborative learning. Manuscript to be submitted to *Ecology and Society*, September 2004 (see <http://www.ecologyandsociety.org/>)

Knowledge has always been central to our ability to manage water resources, and research is central to the process of knowledge creation and verification. Alignment, compatibility and flow of knowledge between researchers, policy makers and water resource managers are necessary conditions for improving the overall capability of a water research and management institution. Instead, these functional relationships are often characterised by misunderstandings, friction, unhealthy conflict and significant misalignment.

A number of strategies – often branded under the banner of knowledge transfer – are commonly used in an attempt to bridge the knowledge divide(s) between research, policy formulation and operational management related to natural resources such as water and biodiversity. Although current strategies achieve some result, they fall short of delivering proper alignment and seamless flow of knowledge between the domains. Ideally, a natural progression should be

fostered, among all parties, from research and design to adoption, diffusion and sustainable implementation.

We expose two misconceptions that are commonly held regarding the concept of knowledge transfer:

- Knowledge exists in an explicit form only. In fact, knowledge differs from information or technology in that a large portion of knowledge is in a tacit form, highly contextual and intimately linked to personal experience. By rendering knowledge its explicit properties only, we underestimate the true effort required to transfer knowledge. Information or explicit knowledge can be passed on relatively easy; the transfer of associated tacit dimensions requires intimate human interaction. People need to spend time together, develop trust in each other, learn more about each other's contexts and jointly facilitate conversions of knowledge between tacit and explicit forms. Without this comprehensive knowledge transfer, an adopter's ability to understand, replicate or exploit new knowledge is constrained.
- Science is the sole domain responsible for knowledge production. Instead, knowledge is created in the science, policy and management, as well as the traditional knowledge domains. Each of these domains generates its own knowledge supply and knowledge demand, and constitute and store knowledge differently. Associated with the notion of science as the sole producer of knowledge is the perception that knowledge move in one direction only – from science to management. Science is commonly depicted at the "upstream" end of a one-way process by which useful discoveries and inventions eventually flow down to an application home. Although this may be the predominant direction in which a new technology moves, knowledge must flow bi-directionally to effect successful transfers. Since knowledge transfer – especially of tacit knowledge that often governs the effective use of the information or technology being transferred – is essentially a two-way communication process, researchers and managers must engage in a series of exchanges if they are to establish a mutual understanding about the meaning and application context of a new technology and it's associated knowledge.

The challenge articulated in this paper is that of producing a proper relationship between a nation's (and a planet's) capacity to create and supply appropriate knowledge, and its capacity to absorb, translate and exploit such knowledge. More and better scientific solutions will be of academic interest unless there is a receptive management cadre that possesses the capability to both absorb and implement the new solutions. Similarly, the best policies and management strategies will be in vain without a constant stream of tested and verified concepts, tools and methods.

The main learning points of this paper are:

- Diffusion of new knowledge would be relatively simple in the absence of social, cultural or technological divides. In fact, if no divides existed the need for knowledge diffusion would not have been much of an issue. The reality is that, in the multi-disciplinary and multi-stakeholder environment of ecosystem research and management, such divides or differentials are bound to exist. The challenge is to acknowledge the value of diversity – in skills, ideas, and approaches – and to find a mechanism for also achieving sufficient overlap between multiple domains to bring about effective communication, a shared purpose and coordinated actions. In short, knowledge is complementary when it is different as well as related, so we need to work towards achieving *overlapping diversity*.
- The tacit dimensions of knowledge leaves the concept of knowledge transfer much less useful than the concepts of information transfer and technology transfer. Instead of knowledge transfer, we propose that "co-production" of knowledge through collaborative learning between "experts" and "users" is a more suitable approach to building a knowledge system for the sustainable development of ecosystems. This can be achieved by moving

from a view of knowledge as a “thing” that can be transferred to viewing knowledge as a “process of relating” that involves negotiation of meaning among partners. This latter view requires establishment of a trusting relationship between all parties involved to enable them to share and compare the various interpretations of their messages when sending and receiving.

- An inter-organizational space, referred to as the knowledge interface, is required for people from various knowledge domains to engage in collaborative learning. We model the architecture of the knowledge interface on guidelines for nurturing (as opposed to designing) communities of practice (CP). A key acknowledgement is that informal structures such as CP are essential and complementary to the formal structures of organizations to achieve effective learning and knowledge interfacing across domains.
- In practice, R&D programs with a learning orientation can facilitate the formation of CP and associated knowledge interfacing. The design challenge for R&D programs is to avoid the pitfall of being either research driven or user driven. Successful programs will engage both ends of the spectrum in a dialogue out of which emerges a negotiated view of what is both feasible and desirable. Through peer-to-peer learning among participants from multiple domains, a collective and aligned knowledge base becomes a key asset in determining a nation's ability to achieve sustainable development.
- Since most knowledge essentially resides with people, it is only real people that can give the knowledge interface its functionality, namely multi-domain sharing of existing knowledge and collaborative creation of new knowledge. The challenge is to populate this interface. As observed from the discourse on CP, an individual or small group is commonly responsible for the direction, viability and success of these learning and sharing communities. We call these people the social integrators and suggest that effective empowering of social integrators is a key step towards bridging the science-management knowledge divide. The lack of a recognized reward system for “social integration” is often seen as a constraint and needs to be addressed in order to progress from ad hoc transactions between scientists and managers to a durable and strategic alliance.

At a grand scheme, Edward O. Wilson talks about “consillience” as “literally a jumping together of knowledge by the linking of facts and fact-based theory across disciplines to create a common groundwork of explanation”. He suggests that all knowledge, from disciplines as diverse biology, anthropology, physics, economics and the arts, is intrinsically unified. Consillience is the key to return to the intrinsic unity of knowledge from its current fragmentation, which he views as an artifact of scholarship. Wilson illustrates the appeal of consillience through the domains of environmental policy, ethics, social science and biology. “We already intuitively think of these four domains as closely connected, so that rational inquiry in one informs reasoning in the other three. Yet undeniably each stands apart in the contemporary academic mind. Each has its own practitioners, language, modes of analysis, and standards of validation. The result is confusion ...”.

The knowledge interface described in this paper represents an exploratory architecture for enabling Wilson's consillience to take place. Cultivating this multi-domain alliance is not the easiest of roads, but it is perhaps the one with most promise of giving affect to the ideals of sustainable development and ensuring a future.

3.2.5 Assessment of the water policy process in South Africa – 1994 to 2003 (Paper 5)

De Coning, C.B. and Sherwill, T. 2004. An Assessment of the Water Policy Process in South Africa (1994-2003). WRC Report No Report No TT 232/04. Water Research Commission, Pretoria.

This report provides a recording and interpretation of the policy process followed by government in developing the White Paper on a National Water Policy for South Africa between 1994 and 2003. An attempt is made to solicit lessons of experience from the last ten years and to suggest findings regarding future options. It was found that valuable experiences exist which are relevant to present and future policy and strategy initiatives of the Ministry and Department of Water Affairs and Forestry, comparative experiences of other departments and sectors and which are relevant to policy process development in a regional and global context.

There is a significant body of knowledge and experience emerging from the academic field of public management, particularly in relation to the management of large-scale policy initiation, development and implementation processes. This knowledge is able to provide us with generic models for planning and managing public policy, within the context of an open democratic society. These models can add great value to the technical content of public policy, by providing ways to ensure that the overall process of initiating policy, setting the policy agenda, generating and analysing options, making decisions, planning for implementation, and tracking and evaluating the effects of implementation, is systematic (and hence properly programmed and resourced), consultative (and hence credible and legitimate) and directed to meeting the real needs of society, rather than being subject to short-term imperatives for political gains. Having a systematic process whose structure, steps and intention are all explicit greatly aids shared understanding and support for the process and its results, not only from the beneficiaries in society itself, but (often more importantly) also from the government officials and technical teams working on policy development, implementation and review.

The South African water policy process was retrospectively analysed against an appropriate selected policy process model, one which has emerged from African experiences and needs, and has more recently been modified for the South African situation. This allowed examination of two themes: firstly, the degree to which the water policy process itself had been (and still remains) logically ordered and had demonstrated an underlying structure, even though many people at various times felt the process to be more or less chaotic; secondly, the identification of current weaknesses in implementation and ongoing policy refinement, which may have arisen due to earlier "steps" in the generic public policy cycle not having been given sufficient attention.

Some specific findings were made regarding policy and strategy processes, institutional capacity and policy research in the water sector, and these are taken up in detail in the report. The findings of the study included a confirmation of the technical quality of the policy, but also identified several opportunities and priorities in the implementation of water policy.

Research priorities in the area of policy related water developments in South Africa for the next period may include:

- An assessment of the need for and nature of further policy developments required in the water sector over the next decade;
- A practical perspective on priorities in the planning and implementation of the National Water Resource Strategy;
- Development of a monitoring and evaluation system for the water sector as a whole, beyond DWAF. This may include a sector wide performance management system as well as a prioritised evaluation portfolio;

- It is clear that institutional strengthening of various organisations will be necessary to ensure implementation. A number of areas for research exist such as co-operative government and governance in water, roles and responsibilities of the key players;
- It is recommended that a case study and story-telling programme be developed to serve as a teaching and learning vehicle as well as research cases of lessons of experience in the water sector.

3.2.6 Planning and managing for implementation (Paper 6)

De Coning, C.B. Policy implementation in the South African public sector:
Towards lessons of experience for the water sector. In preparation

This research focuses on key issues regarding the implementation of policy in the South African public sector. The purpose of the research is to clarify concepts, to identify key management and delivery issues in this process and to identify selected lessons of experience for the water sector. A focus has been placed on policy and strategy coherence, planning, programme management and service delivery. Contemporary trends in operations management and project management will receive particular attention. Specific attention has been given to the concepts of performance management, partnerships, institutional capacity and coordination.

In South Africa, democratisation also led to a major review of national policies during especially 1995 and 1996, locally referred to as a 'White Paper Stage'. This period was followed by an emphasis on service delivery (1997 to 2003) with a renewed emphasis on implementation by President Mbeki following the elections of 2002. During the keynote address by the Minister of Public Service and Administration at the occasion of the 10 year celebrations of P&DM in December 2003, she also placed a particular emphasis on sound governance and effective and efficient public administration with some cautionary notes on the new Public Management Paradigm. In recent times much attention has also been given to the establishment of monitoring systems, political oversight and the need for evaluation and review. In this process the realisation has dawned on many scholars and practitioners that these processes need to be consolidated so that a more coherent policy and strategy system with ongoing review and performance mechanisms are realised.

In facilitating various training courses and workshops for government departments across the spectrum, it is apparent that senior and middle managers are increasingly calling for a joint understanding and a common conceptual framework when terms such as policy, programme or project are used. Although South African policy processes and more recently the MTEF planning instruments have greatly contributed in this regard, the general perception is that top and senior management often do not have a sound understanding of these management processes. It is of interest to note that other countries share this quest and that in Britain for example, the Civil Service College has greatly contributed to an agreed upon use of terms and similar understanding regarding the requirements of job specifications for various levels.

Policy and strategy in the public sector has often been associated with strategic and business planning in the private sector. Whilst these terms are also in use in the public sector, a specific usage of these and other concepts have developed in our environment. The research report proposes an approach in this regard and provides working definitions for these concepts. These include service delivery, strategy generation, departmental planning and business planning and the associated areas of programme management, operations management and project management.

Specific attention has been given to project management in the public sector. Although the generic principles of project management is widely in use in government, a deliberate attempt

has been made by a number of scholars to apply programme and project management in the public sector. These applications differ from typical construction and engineering approaches in that legislative frameworks are different, a public policy paradigm applies and public financial management systems are used. Some particular specialist areas have emerged such as Public Private Community Partnerships (PPCPs), Environmental Impact Assessments (EIAs), Social Impact Assessment (SIA) and government specific performance management systems.

The research identified key challenges for the South African public sector and applied these lessons to the water sector. Some specific observations are made concerning institutional arrangements and capacity building, intergovernmental relations (concerning policy coherence and the coordination of implementation), the planning framework, performance management and the institutionalisation of programme and project management approaches in government organisations.

Important lessons of experience already exist in the water sector. Key role players such as the Ministry and Department of Water Affairs and Forestry, CMAs and water user associations are increasingly sharing these knowledge and skills. In realising all CMAs, much can be learnt from the development of those already in existence and specific vehicles can be further strengthened to ensure that such knowledge is transferred.

3.3 Key learning points

By three methods we may learn wisdom: first, by reflection, which is noblest; second, by imitation, which is easiest; and third by experience, which is the bitterest (Confucius).

Policy development is recognised as being a complex, non-linear process making it difficult to develop generic models and provide guidance to future policy makers. The complex approach followed in developing water policy in South Africa was what analysts refer to as an "adaptive approach" (learning by doing). The six papers produced in this series provide an analysis of the learning gleaned through the process which will be useful in other sectors and possibly in other countries undergoing similar change.

Some of the key generic learning points drawn from across the six papers are captured below:

- The political leadership and context needs to be supportive of and provide the necessary impetus for a reappraisal and revision of Water Policy. Water, being a key to meeting basic human needs can, and has in the past been used as a powerful political instrument.
- Strong visionary leadership supported by well aligned, yet sound management and an appropriate technical team is important. In the case of the South African Water Policy reform process, the visionary leadership provided by minister Asmal and his Director General were key success factors.
- It is essential to develop a clear and common vision and understanding of the desired outcomes of the policy up front. This is particularly important in a cross-cutting sector like water, where there are many and diverse stakeholders and where co-operative governance will be a key success factor, especially when it comes to policy implementation. Clear objectives set the scene for a logical process.
- "Contagious leadership" leading to the mobilisation and empowerment of natural leaders from within the water sector increased the sphere of leadership influence and hence participation in, buy in to and support of the policy reform process by key parties.
- A common thread throughout the papers is the recognition of the importance of communications as a key success factor. Creatively packaged messages with minimal jargon and full use of images and guiding principles such as those used in the South African River Health Programme can be particularly effective.
- The learning culture that dominates the water sector in South Africa was an important factor in the success of the process. Managers and researchers recognised their interdependence

on one another, resulting in the development of a policy underpinned by sound technical understanding of South Africa's water systems.

- The complex, non-linear nature of policy development processes means that the process often appeared to be chaotic and unplanned, leading to significant discomfort amongst technical team members. The strong learning culture coupled with strong visionary leadership enabled an approach whereby gains could be consolidated as the process unfolded and different options could be considered in accordance with the principles of strategic adaptive management.
- In implementing the policy, this learning culture and adaptive approach should be underpinned by an evaluation culture supported by an appropriate monitoring and evaluation system. Sound programme and project management are key to successful implementation.

In general, strong leadership, a sound technical knowledge capacity, the ability to plan (and re-plan) and facilitate a participatory process, good, clear communications and an adaptive, learning culture supported by continuous evaluation and adaptation are the key ingredients which have helped South Africa successfully adapt its water policy to meet the demands of our new democracy. Neglecting any one of these elements will jeopardise success.

There are many possibilities for valuable follow-up research based on the findings of the six papers in this series some of which are identified within the papers. Two specific research questions to support the transition from intent to one of delivery are:

- As we monitor and evaluate policy implementation – what retrospective lessons are there for improving efficiency and effectiveness of the policy development process? How could we improve on our policy process to ensure sustainable operation?
- Based on the recognition of the value of a sound technical basis in the policy development phase, how can we build on this learning culture and maintain and improve the necessary interdependence between researchers (knowledge creation and verification) and managers (knowledge application) through the next phase of policy implementation?

Chapter 4 – Synthesis of Lessons Learnt from Training Seminars

Liesl Hill and Heather Mackay

4.1 History, motivation and objectives of the course/seminar

The development and presentation of a training course was seen as a primary vehicle for achieving knowledge transfer as well as capacity building regarding policy development and implementation. This led to the suggestion to, as part of this project's capacity building strategy, allocate appropriate budget to running two training courses during the project for middle management professionals in the water sector, to transfer the knowledge gained by the core project team members more widely and thus contribute to development of capacity within the water sector for policy development, analysis and implementation.

The course/seminar was jointly developed between WRC, CSIR Environmentek, Wits University (School of Public and Development Management) and the Department of Water Affairs and Forestry (DWAF). The overall goal of the training course was to capture some of the insights and knowledge that have been accumulated over the past decade by people that have been actively involved in the thinking, development and implementation of policy, in particular the national water policy, and to diffuse this knowledge for the benefit of current as well as future leaders in environmental policy domains.

The primary aim of this course was to seek integration between the theoretical concepts and processes of public policy development, and the technical application context of water resources management. The following objectives were hence set out:

- to create an understanding of basic public policy concepts and frameworks
- for participants to be able to apply a generic policy process framework to water policy development, implementation and review
- for participants to be able to develop implementation strategies for policies and programmes in the water sector
- to understand the generation of policy options to meet the needs of a changing society.

4.1.1 Course/seminar structure, content and target audience

The course/seminar was designed to be interactive and to be run in a manner that facilitated learning through personal reflection and knowledge sharing. The seminar programme, seating of participants, the informal style and facilitation of the seminar were all factors that favoured and encouraged interaction and discussion between the group and the presenters.

Four main themes were addressed in the programme (attached as Appendix B):

- generic frameworks for public sector policy development, implementation and evaluation
- application of generic frameworks to water policy
- effective implementation of policies and programmes: planning; monitoring and evaluation; institutional capabilities; logistics
- options for continuous revision and improvement.

Both the training course and the seminar were aimed at senior people that were involved in the policy development process, those with policy implementation responsibilities and in general for staff with strategic functions.

Training course May 2003

The first event was referred to as a training course which was presented over two days during May 2003. This first course was restricted to DWAF personnel. Twenty nine DWAF staff members, nominated by the Deputy Director General: Water Policy and Regulation, and two "observers", participated in the course (names of attendees are attached as Appendix B). Participants varied between senior managers, midlevel managers and junior personnel. The development and production of the course material, organising of the course, venue, meals and presenters' fees were sponsored by the WRC and participants were not charged to attend the course.

The course was structured to allow enough time for group discussion and interaction in a smaller group environment was further encouraged by providing for learning groups to break away at times during the course of the programme to discuss and share their experiences that related to the theme of the particular session.

Shortly after the course the project team held a debriefing session to evaluate feedback received from the participants (Appendix B) and to discuss the outcomes of the course. The key outcomes of this meeting are reflected below:

- After thorough consideration we realised that it was not our intention or mandate to develop a "training course" and that we would hence move away from a training course format and rather develop and market this event as a professional seminar to be held annually, and for it to become an annual highlight on the water agenda. The structure and content of the seminar should be sufficiently dynamic to always reflect the latest developments and thinking in the field. In essence, no two seminars would be exactly the same.
- Run the seminar over three days, with a full day being devoted to the themes of i.e. policy development, policy implementation, and policy monitoring and evaluation respectively.
- Open the seminar to delegates from outside DWAF while retaining strong DWAF participation.

4.1.2 Professional seminar February 2004

The seminar was presented the following year (10 to 12 February 2004). The programme, presenters and participants for the second seminar are attached as Appendix B. This seminar was open to delegates from outside DWAF and a total of twenty nine delegates registered, of which fifteen were DWAF personnel. The rest of the participants were from other organisations such as the CSIR, universities and private consultancies.

The seminar was extended to three full days. Each day was dedicated to a particular theme, namely policy management, strategy and implementation and institutional arrangements for strategy implementation. As with the first course, case studies were included in the programme, using practical examples of the water policy process and issues surrounding it. Towards the end of the programme each day, participants were given the opportunity to ask questions and discuss issues with a panel of experts that were invited to attend.

The second seminar was the last seminar presented as part of the project. Due to the obvious demand and perceived value of the seminar amongst practitioners, it has been recommended that future seminars should be presented annually under the auspices of the WRC.

4.2 Feedback from participants and panel regarding the structure and content of the seminar

Participants were asked to fill out an evaluation form towards the end of the course/seminar. Time was also allowed on the last day for participants and the presenters and the panel to reflect and provide feedback with regards to the course/seminar. The main points arising from the feedback are summarised below.

Target audience

Although the course/seminar was aimed more at senior personnel and mid-level managers with experience in policy processes, a number of junior DWAF staff members attended. On the one hand it was felt that the course/seminar provided the ideal opportunity for relatively inexperienced personnel of the Department to enhance their understanding of policy development, implementation and review. It did however take them a long time to see the relevance of the theory, especially the generic policy process. It is likely that high-level training on policy theory is probably not really useful if introduced too early in the career of government officials. The great difference in levels of experience and understanding of participants, with regards to the policy process furthermore created some difficulty in managing the types of issues that were raised during the discussions.

The first course was largely attended by water resources and some water services personnel. It is clear that a strong separation exists between the two groups. Even though both groups are implementing aspects of the same policy, they work on and implement policy in isolation due to the current organisational structures within DWAF. The ideal would be to in future have a greater spread of sectors (instead of mainly water resources) from DWAF at the seminar, and to ensure that both policy developers and those that have an implementation responsibility attend. Staff from DWAF Regional Offices particularly should attend, since, as implementers of policy, their feedback on effects of and deficiencies in policy is key to the developers of policy.

It was further felt by the delegates that more senior managers should attend the seminar.

Structure and content

It was felt by many of the DWAF participants that they do not know where they fit in the policy cycle and how they contribute to the policy development, implementation and review processes. There is a dire need to link people's daily work to where it fits in the policy cycle. Many felt that they would benefit from some degree of training prior to participation in the seminar – particularly to be told where they fit in the policy cycle, how their daily work relates to policy implementation, evaluation, review and development.

In terms of the structure of the seminar, the following suggestions were made for future seminars to be presented:

- to include an exercise to get people to connect what they do in their everyday work through the various levels of strategy and policy, taking it back as far as the constitution
- to include a storytelling exercise by using the participants' own experiences and examples of projects/programmes they have been responsible for, in order to share some learning about possible "good practices", resources and support for example
- to either have working groups work through a practical exercise or an assignment or to break up in plenary talks and have small group sessions. This would not only provide an opportunity to anchor what was learned, but would also provide an opportunity for individuals to share their understanding and experiences with others in the group. It could

further create an opportunity for individuals who would prefer to interact and participate in a small group

- instead of running the seminar over three consecutive days, to rather run it over two days, and to come back for the third day at a later stage, to consolidate learning after a period of application.

With regards to the content of the seminar programme, it was suggested to:

- focus more on what (content) should form part of a strategy rather than its roll-out
- include more case studies and practical examples in the programme and to provide a balance between water policy and other sector examples
- address water services specifically and to not only focus on the water resource.
- include monitoring and evaluation of the impact of policy
- provide and discuss a set of objective criteria and indicators related to the management of the policy process, rather than focussing only on the state of water resources, or the number of taps that have been installed
- specifically include co-operative governance issues (e.g. the cluster system by DWAF) since coherence of water policy with other sectoral policies is often not clearly understood.

4.3 Key issues arising from discussions during the course, seminar and workshops

Key issues arising from discussions during the course and seminar and which should be clarified and addressed in future seminars, include the following:

- explaining what the difference between policy and strategy is
- how does research relate to whole policy process
- whether policy should lead legislation, or vice versa
- the need for meta-policy
- structured monitoring and evaluation criteria for impact & implementation of policy
- what and where are the gaps in legislation
- what administrative law comprises. In particular middle managers and technical staff need to know what the law requires and prescribes, e.g. when can they prosecute and when can they be prosecuted?
- an overview of the roles and responsibilities of CMAs, links to other institutions. Institutional oversight of CMAs by DWAF
- quantitative estimates of resources needed for implementing policy (e.g. human and financial resources and infrastructure required). This is particularly important when moving from strategy to implementation
- more rigorous analysis of policy options is required
- an explanation of what DWAF's roles and responsibilities are relating to international collaboration
- when do you stop developing/formulating policy and start implementing?
- the development, implementation and monitoring of policy often takes place simultaneously. Clarity is required regarding the larger generic policy cycle, and who plays what role and what their responsibilities are. This would ensure that better co-ordination (content and timing) and coherence between groups working on different elements/components of policy take place, which may be at different stages in the policy cycle. If more time can be spent upfront to for example analysing policy options in detail before commencing with implementation, some of the obvious implementation problems may be avoided. Alternatively, if the formulation phase is shortened, it would be possible to modify or refine policy on the basis of lessons learned during early implementation. Both approaches have inherent advantages and disadvantages to be considered
- clustering objectives and processes between different agencies is required

- building capacity
- to explain the language and jargon to ensure effective communication
- different perceptions and priorities need to be clarified.

4.4 Evaluation of the training seminars and lessons learnt

4.4.1 Achievement of seminar objectives

Both the course and seminar was received very positively and all the participants felt that their colleagues should attend and most felt that they themselves would again like to attend future seminars. Feedback from participants indicates that overall, the course/seminar objectives were achieved to a high degree. This is also being reflected in the course/seminar evaluation statistics and comments (see Appendix B) with regards to these objectives, namely:

- To create an understanding of basic public policy concepts and frameworks – 95% of the participants felt that the course/seminar was “very informative”, that their current understanding of policy concepts had improved and that they had a better understanding for the “policy jargon” that is being used.
- For participants to be able to apply a generic policy process framework to water policy development and implementation – 81% of the participants felt fairly positive that they would be able to apply a generic policy process framework and that they had a “better understanding of the different levels of policy development”. It was also felt that the course/seminar material was very extensive and was excellent for reference purposes.
- For participants to be able to develop implementation strategies for policies and programmes in the water sector – 83 % of the participants were quite confident that they would be able to apply this objective. However, they requested that a water-sector related, practical exercise or assignment in this regard be included in future seminars and that more time be spent in future on the development of implementation strategies topic.
- To understand the generation of policy options to meet the needs of a changing society – 86% of the participants indicated that they had gained a good to excellent understanding in this regard. It was suggested that the invitation to future seminars be extended to other government departments in particular.

4.4.2 Impact of seminar

After the course/seminar, it was not immediately evident what the impact might have been on the way DWAF manages policy, although there is (subjective) evidence of more discussion within DWAF about e.g. the need for metapolicy, and recognition of some of the current weaknesses in DWAF business processes related to management and implementation of policy.

It was decided to contact all the participants some time after they had attended the course/seminar in order to establish whether the course/seminar has affected the way in which they perform their day-to-day tasks or think about their tasks. A questionnaire was subsequently sent to all the participants during August 2004, which was just over a year after the 2003 course and six months after the 2004 seminar. A total of nine (15%) participants responded – four from the 2003 course and five from the 2004 seminar. Their responses have been collated and are summarised in Appendix B.

From the feedback received, approximately 81% of the respondents felt fairly confident that the course/seminar had influenced their understanding of basic policy concepts and the generation of policy options, in a positive manner. These participants also rated their ability to apply a generic policy process framework to water policy development and implementation as well as to

develop implementation strategies for policies and programmes in the water sector, as being good to excellent after the course/seminar.

Apart from one respondent, all felt that they would recommend the seminar to their colleagues. Almost 80% of the respondents indicated that since attending the course/seminar, they have actively sought more information or professional training relating to the field of public management and public policy, of which 38% felt that it had been a direct result of them attending the course/seminar. According to the rest of the respondents the course/seminar partially contributed to their seeking out more information, but that this was also as a result of work related responsibilities.

Close to 50% of the respondents indicated that the course/seminar has changed the way in which they plan, execute or evaluate the policy initiatives for which they are responsible for. Although the rest felt that the course/seminar has had no influence, some did indicate that it was mainly due to certain structures that were not yet in place in their respective units.

A general conclusion which can be drawn from the responses to the follow-up questionnaire is that participation in the seminar raised people's awareness and understanding of public policy and policy management issues. However, the seminar alone is not likely to have a profound influence on actual business processes and behaviour of professionals in the water sector unless it is as part of a larger process of knowledge-sharing, capacity-building and training specifically related to policy management. The initiation and implementation of such a process will require sustained, strong leadership from within the sector, and particularly within the primary water management agency, DWAF.

4.4.3 Lessons learned: Guidelines and strategy for future seminars

It is believed that the feedback received from both participants and presenters of the course/seminar enables us to provide guidelines and a potential strategy that could be followed and that would contribute to an improved future seminar. These are captured in the main lessons that we have learnt below:

- Advertising the seminar. The overall response to both the course and the seminar was overwhelming and not everyone that wanted to attend could be accommodated. It is however felt that advertising the seminar more widely both within and outside of DWAF would ensure a wider spread of participation and avoid having one sector dominating the seminar.
- Participants. Although the advertisement specified that the course/seminar was aimed at senior personnel with experience in either policy development or implementation, participants included some junior personnel with little or no experience in the policy process. This puts both the facilitator and the presenters in a difficult position when having to manage questions and issues that arise during the discussions.
- Cost of the seminar. Since the course/seminar was developed and presented as part of this project, no registration fees were involved and the course/seminar was presented free of charge. It was however felt that some of the participants were, as a result, less committed to attend the full duration of the course or would leave for periods during sessions to attend to other matters. It was therefore suggested that in future attendees should be charged to attend at a minimal fee that would at least cover the cost of presenting the seminar. Shared funding between the different partners (DWAF and WRC) was suggested as an option for supporting the seminar in future.
- Seminar content and structure. Various suggestions were made as to what should be considered to be included in future seminars and have already been addressed in 4.2 above. The focus on policy processes rather than technical content was however a very specific need that was raised. Furthermore, the structure and content of the seminar should

be sufficiently dynamic to always reflect latest developments and thinking. In essence no two seminars should be exactly the same.

- Future seminars. It was felt that this event should be presented as an annual professional seminar and that future seminars will be presented under the auspices of the WRC.
- Mailing lists. One of the aims of the course/seminar was to encourage networks that would contribute to improved professional practice, and improved delivery on policy objectives. A mailing list of everyone that has up to now attended either the course or seminar is suggested to provide the latest updates and to provide access to sources of information, training and people in the policy field.

Chapter 5 – Training and Capacity Building Approaches

Dirk Roux and Heather MacKay

5.1 Introduction

The term "capacity building" is somewhat over-used in South Africa today, yet the importance of ensuring the capacity for implementation of new policy is readily recognised. However, because the term is used so widely and in so many different contexts, it is necessary to clarify what is meant by it in the context of this research project.

5.1.1 Defining capacity building

Capacity to deliver services in a sustainable way is conceived by Grindle and Hildebrand (1995) as "... the ability to perform appropriate tasks effectively, efficiently and sustainably. In turn, **capacity building** refers to improvements in the ability of public sector organisations, either singly or in co-operation with other organisations, to perform appropriate tasks".

The World Bank defines the capability of the state as "the ability to undertake and promote collective actions efficiently" (World Bank, 1997). Normandin (1997) refers to the capacities of states as "their abilities to identify and meet development challenges in a sustainable manner". Savitch (1998) defines institutional capacity as "... the increasing ability of organisations to absorb responsibilities, operate more efficiently, and enhance accountability", while Miller and Morris (1999) refer to organisational capability as "a systems thinking construct that integrates tools, technology, process, and the associated knowledge that people have and create into a manageable unity".

The capacity of the public service can be conceptualised as the structural, functional and cultural ability to implement the policy objectives of the government, i.e. the ability to deliver those public services aimed at raising the quality of life of citizens, which the government has set out to deliver, effectively as planned over time and in a durable way. It obviously refers to the availability of and access to concrete or tangible resources (human, financial, material, technological, logistical). Capacity also includes the intangible requirements of leadership, motivation, commitment, relationships, trust, willingness, guts, endurance, and other intangible attributes needed to transform rhetoric into action. The political, administrative, economic, technological, cultural and social environments within which action is taken must also be sympathetic or conducive to successful implementation (Grindle and Hildebrand, 1995).

In the context of the new network approach to service delivery, Savitch (1998) regards capacity building as a total (structural, functional and cultural) transformation of government in order to mobilise all available resources to achieve policy objectives. We would like to add an emphasis on the importance of human "knowledgeability". It is ultimately humans that make decisions that foster new relationships and that change behaviour. Appropriate and sufficient knowledge, which essentially resides in people, is critical in the capacity equation.

Knowledge is defined as a mix of fluid experiences, values, contextual information and intuition that provides a structure to evaluate and incorporate new experiences and information (Davenport and Prusak, 1997); true and justified belief (Nonaka and Takeuchi, 1995); a capacity to act (Sveiby, 1997); a state of knowing (Allee, 2003); an active process of relating (Stacey, 2001); the capacity to act effectively (Dawson, 2000); the capacity for informed action (Roy Page-Shipp, personal communication). This [human] capacity for informed action comes about through the **integration** of information derived from data, plus theory that puts the information in the proper context, plus experience of how things work in the real world. The process of

integration is also called learning (Miller and Morris, 1999); hence the strong focus on learning in the remainder of this chapter.

5.2 Development of approaches for training and capacity building

Sustainable management of natural resources requires achieving a balance between economic, ecological and social needs, whether at the project level or the policy level. As well as demanding a mix of technical and social or "softer" skills, achieving this balance demands expert judgement on the part of decision makers. Expert judgement is usually considered a legally valid way of making decisions where insufficient numerical data exists. Yet insufficient data will always exist because of the statistical uncertainty inherent in ecological processes (which include human impacts), and because of some of the non-quantifiable social and cultural values placed on natural resources. Hence expert judgement will always underpin decision making, whether at local, national or international level.

The problem is that judgement can seldom be fast-tracked - it has to be built up through adequate periods of field observation, training and experience. Much national and international research funding these days is going into the development of ever more complex and sophisticated models and decision support systems, but in general our graduate students and younger professionals in early or mid-career are no longer spending the time in the field which allows them to begin building the foundation of judgement that they need: collecting basic ecological data, observing and investigating ecological and social processes in action. These things cannot be learned entirely from a model, a textbook or a coursework programme, and in those young people who are coming out of such textbook-based programmes into resource management agencies or specialist environmental consulting, the lack of field experience, and the resulting lack of confidence in their ability to make sound decisions, are frequently evident. This is of concern when these same people may be in key decision-making or policy-making roles, either presently or in the medium-term future.

Recent years have seen increasing attention being directed to development and implementation of policy for sustainable management of ecosystems. There is an urgent need to support this trend by supporting the middle-level and senior managers whose responsibility this is. In an ideal world, we would have the time and the resources to develop undergraduate and postgraduate programmes designed to provide people with sufficient skills, judgement and experience before their entry to agency positions. However, the reality is that many people are currently in these positions without the benefit of long-term training and capacity building. Few opportunities are available in South Africa for postgraduate or professional in-service training for development and implementation of natural resource management policy, since this is still a relatively new field of research in southern Africa. In addition, it is a field which requires true integration between many disciplines when course material and programmes are developed – something which is also rather new in South Africa.

5.3 A learning institution

In times of change or reform, our capacity to learn – individually and collectively – takes on special urgency. We have to selectively unlearn or forget outdated habits, reflect on the most appropriate future direction and strategically acquire new knowledge – all at the same time. However, organisations are typically designed for effectively applying what they know rather than learning. Yet, our capacity to do, and especially to do better, is completely dependent on our capacity to learn. How do we increase the learning capability of the water institution? This section explores some of the important consideration and implications relevant to becoming a learning institution.

5.3.1 Types of learning theory

We can distinguish between two types of learning theory. First, there is the study of the mechanics of learning, including neuroscience, genetics, evolutionary psychology, cognitive science, and information processing models. Second, there is the social theory of learning, which claims that learning is rooted in social interactions – in a group or by oneself – and under culturally based interpretations. Social theory of learning focuses on the production of meaning. Different people will draw different knowledge from the same information. However, when we debate the information and negotiate its meaning, we develop mutual understanding. The social perspective of learning encompasses the tension between knowledge diversity and mutual intelligibility (Wenger, 2004). This social dimension of learning is of particular relevance in a diverse institution where it is important to align resources and actions behind a common high-level purpose.

5.3.2 Participating in broad learning systems

The most common form of learning takes place at the individual level, followed by learning in small groups or project teams. However, the increased complexity and diversity of domains of knowledge entails an increase in interdependence among people and among groups of people. In complex knowledge domains it is imperative for stakeholder organisations to learn how to participate in broader learning systems such as disciplines, sectors, regions, alliances and consortia. Even with a specialised domain, there is more to know and more new knowledge being produced at a faster rate for any one participant to claim exclusive ownership or mastery of the domain. [Just when you think you have discovered a completely new approach, you find someone has published a book on the topic.]

One's own knowledge is always partial, and appreciating this partiality is essential to being able to contribute. Knowing is about being able to **participate** in complex systems rather than **owning** the entirety of the domain of knowledge under consideration. The challenge is to learn how to effectively participate in broader learning systems – to be one part of a larger process where the benefit is mutual. "You know your part, but because your knowledge is engaged, in practice you know more than you know" (Wenger, 2004).

5.3.3 Absorptive capacity relates to accumulated prior knowledge

Effective knowledge engagement, as described above, can only realise when an organisation, group or individual has sufficient own and related knowledge to recognise the value of external information, assimilate it and exploit it. This prior knowledge may include basic skills, a shared language or knowledge of the most recent scientific or technical developments in a given field – all of which permits effective communication across boundaries (Cohen and Levinthal, 1990).

If an individual does not possess appropriate contextual knowledge to make new knowledge fully intelligible, such new knowledge may be nominally acquired and not well utilized subsequently. Similarly, the higher an institution's absorptive capacity, the more it will be able to exploit knowledge that is generated elsewhere in the world including other disciplines and countries. This absorptive capacity is based on both the width and depth of the existing knowledge base within an organisation or institution.

5.3.4 Learning is cumulative in a context-specific way

People construct new knowledge or understanding based on what they already know or believe (NRC, 2000). The "worldview" or "reality" of an individual provides the context within which new information is processed. Worldview is moulded by multiple factors, e.g. era in which you grow

up, environmental, demographic, cultural and geographic influences, and a disciplinary/theoretical background.

For individuals, the learning process is enhanced when attention is given to the knowledge and beliefs that individuals bring to a learning event. If the initial understanding of individuals is not engaged, they may fail to grasp new concepts and information that are presented; or they may memorize these but not fully understand them (NRC, 2000).

An implication for organisations is that, by having already acquired some knowledge in a specific area, an organisation may more readily accumulate what additional knowledge becomes available to fully exploit a particular wave of development (e.g. new policy direction). It will be difficult for an organisation to pursue completely new direction, e.g. in times of radical policy change, without at least some prior knowledge of the new field. Furthermore, the context-specific nature of knowledge often constrains an organisation's ability to understand, replicate or exploit external knowledge (Zahra and George, 2002).

Fish is Fish

The context-specific nature of learning is well illustrated by the children's book *Fish is Fish* (Lionni, 1970). The book describes a fish who is keen to learn about the world outside its pool. It befriends a tadpole who grows into a frog and eventually leaves the water to explore terrestrial life. The frog returns a few days later and tells the fish about the birds, cows and people that he has seen. In the mind of the fish, all these creatures are fish-like: birds are fish with wings; cows are fish with udders and horns; and people walk upright on their tailfins. This tale demonstrates both the creative opportunity and dangers inherent in the fact that people construct new knowledge based on their current knowledge and worldview.

5.3.5 Learning performance relates to accumulated prior knowledge

Due to the cumulative nature of learning, learning efficiency is greatest when the object of learning is related to what is already known. Accumulated prior knowledge increases both the ability to put new knowledge into memory and to recall and use such knowledge. Memory development is thus self-reinforcing in that the more objects, patterns and concepts that are stored in memory, the more readily is new information about these constructs acquired and the more adept is the individual in using this knowledge in new settings (Cohen and Levinthal, 1990).

This point explains an important difference between experts and novices related to the nature of their knowledge competence. Experts' command of concepts shapes their understanding of new information – it allows them to see patterns, relationships, or discrepancies that are not apparent to novices. Experts do not necessarily have superior overall memory, but their conceptual understanding allows them to extract a level of meaning from information that is not apparent to novices (NRC, 2000).

5.3.6 Diversity provides a robust base for learning

Opposing views exist regarding the value and management of demographic diversity of a knowledge system. One school of thought is that demographically diverse teams exhibit lower network density – i.e. they are less cohesive – which lowers the team's capacity for effective communication and coordination. Another view is that heterogeneous teams enjoy enhanced potential for learning and a creative edge (Reagans and Zuckerman, 2001).

In general, a diverse background – in individuals as well as organisations – provides a more robust basis for learning because it increases the prospect that incoming information will relate to what is already known. Especially in times of rapid technological change, it may be wise to maintain a broad range of receptor agents, i.e. a wide knowledge base. The irony here is that if all the knowledge professionals in an organisation share the same specialised language (low knowledge diversity), they will be effective in communicating with one another but they may not be able to tap into diverse external knowledge sources. To achieve effective learning in the water institution, the challenge is to balance knowledge diversity (to increase potential for acquiring new knowledge) with knowledge overlap (to enable effective communication and coordination). We already have a high level of diversity in the South African water sector, and have to work at improving the overlap by developing shared understanding around fundamental concepts and principles.

5.3.7 Memory is not the same as understanding

While the width of a knowledge base is important (explained above), the depth of understanding is equally important. Knowing the facts does not add up to knowledge competence. Competence relates to understanding, and understanding relates to a deeper process of connecting and organizing knowledge around important concepts. Such "conditionalized" knowledge supports understanding as well as knowledge transfer to other contexts, rather than only the ability to remember.

To develop competence in an area of inquiry, individuals must have opportunities to learn with understanding. Learning with understanding in any area of inquiry implies (NRC, 2000):

- A deep foundation of factual knowledge. It is suggested that fundamental understanding of a few defining concepts within a discipline provides a stronger basis for competence than a superficial coverage of all topics in the subject area.
- Understanding of facts and ideas in the context of a conceptual framework. Organizing knowledge into a conceptual framework allows for greater transfer of knowledge to new situations and to absorb new information more quickly.
- Intensity of effort in understanding concepts. The more deeply material under study is processed – for example the more effort is used to make use of associations between the items to be learned and knowledge already in the memory – the better will be the later retrieval of the knowledge.

5.4 Effective knowledge sharing

*Since human knowledge is so deeply contextual, we always know more
than we can tell, and we can tell more than we can write down.*
(Dave Snowden)

Modern society tends to value action and not reflection, to the extent that we are too busy to learn. Learning is not seen as a valid activity at work, and in most organisations staff admit that they learn in their "free" time. The downside to this is that group learning, which builds collective

understanding, is neglected. How can the water institution create the space for appropriate learning activities, such as knowledge creation and sharing, related to policy processes?

Effective learning is about effective knowledge creation and sharing. Therefore it is important to understand the various and complementary forms of knowledge that need to be shared, namely what we can write down, what we can say, and what we can neither say nor write down.

5.4.1 Knowledge that we can write down

In knowledge management the writing down of knowledge is often referred to codification or content sharing. Knowledge, which is tacitly possessed, is codified or made explicit in the form of numbers, words and equations. In this form, knowledge can relatively easily become part of organisational artefacts (tools, documents, procedures, etc.), and can be transferred and "owned" by organisations. Strictly speaking, the written form does not represent knowledge but information. It becomes knowledge when an individual interprets and internalises the information.

The reflective creation of explicit forms of knowledge is time consuming but very important. It captures the knowledge and learning associated with a certain issue, era or event and can be passed on to others. This report and the issues papers (Chapter 3 and Appendix C) are examples of codified knowledge. At the same time it must be realised that, once in an explicit form, control is lost over the subsequent use of that knowledge. This is because explicit forms only become practical knowledge when individuals can apply their own experience and contextual understanding to interpret the details and implications for action. Secondly, the loss of content and particularly context involved in writing down or codifying tacit knowledge means that explicit forms are only ever a partial representation of what we know (Snowden, 2002).

5.4.2 Knowledge that we can narrate

Whereas some knowledge can be recorded in explicit form, tacit knowledge can often be transmitted more thoroughly through narrative. In fact, the more intricate the knowledge, the less effectively it can be codified (James and Minnis, 2004). Narrative sharing allows the exchange of context associated with the content of interest that may be difficult or even impossible to write down. This context may be conveyed in subtle forms such as emotion or body language.

The training seminars that were presented during this project (Chapter 4) are examples of using narrative sharing (two-way communication) to complement written course material in order to establish mutual meaning of the subject matter. The construction of stories, anecdotes or metaphor is a particularly useful technique for storing and sharing knowledge via the institutional lore. The creation of space for strategic conversations and storytelling is increasingly recognised as a good learning and knowledge sharing practice.

5.4.3 Knowledge that we can neither narrate nor write down

A certain component of knowledge exists only within and between the minds of people. This deeply tacit knowledge firstly accounts for that which we don't know that we know – until we need to know it. This knowledge may be latent until there is a specific call for it, upon which it will provide an individual with a "capacity for informed action". This knowledge can also be classified as individual and non-codifiable.

Secondly, there is a collective type of knowledge that is non-codifiable. This knowledge resides between the minds of people. The value of this knowledge manifests, for example, in the efficiency with which established teams – such as project teams or sport teams – operate.

There is an unwritten and unspoken code between members that allows such team to achieve results that is not possible for beginner teams. This efficiency does not come easily and is often the result of a long process based on a combination of peer and self-selection, getting to know each other intimately and developing trust.

5.5 Designing for learning capability

*"I know you believe you understand what you think I said – but
I'm not sure you realise that what you heard is not what I meant!"*
(Ashleigh Brilliant)

In practice we tend to focus exclusively on the explicit properties of knowledge, and as a result underestimate the effort that is required to transfer or share knowledge in its comprehensive sense. In explicit form, the same information would always provoke different meanings in us because our interests, motivations, beliefs, sense of relevance, environmental, cultural, demographic and geographic influences and educational background are always personal and changing – almost minute by minute. Due to this context-specific nature of knowledge, an adopter's ability to understand, replicate or exploit a new technology or information is often constrained.

In designing a learning capability it is important that all three forms of knowledge are acknowledged and receive attention. The dynamic interplay between tacit knowledge and explicit information is key to the processes of learning and knowledge sharing. This can be achieved by moving from a view of knowledge as a "thing" that can be transferred to viewing knowledge as a "process of relating" that involves negotiation of meaning among partners. This latter view requires establishment of a trusting relationship between all parties involved to enable them to share and compare the various interpretations of their messages when sending and receiving.

Bridging organisational, disciplinary, cultural and functional boundaries will be central to promoting learning within the social system of the water institution. The question is, how does the water institution organise itself to be a learning system? The theoretical discourse around communities of practice provides an answer as to how inter-organisational spaces could allow collaborative learning and sharing of knowledge in the comprehensive sense (e.g. Wenger et al., 2002). Communities of practice are by definition horizontal structures that enable peer-to-peer learning among practitioners. Participants engage in the negotiation of mutual relevance of different forms of knowledge as key to the production and transfer of knowledge and the ultimate building of institutional capability. In practice, a properly designed R&D programme could provide such a learning and knowledge sharing capability.

5.5.1 R&D programmes

An effective R&D programme would promote the development and maintenance of a core capability for policy development, implementation and review in the water sector. Such a programme should be more than a mere collection of independent R&D projects, and must cater for learning interdependence among multiple component parts. By following a learning-by-doing approach, an R&D programme would facilitate a partnership between those involved with development of a theoretical discourse and a community of strategic and operational practitioners (Figure 5.1).

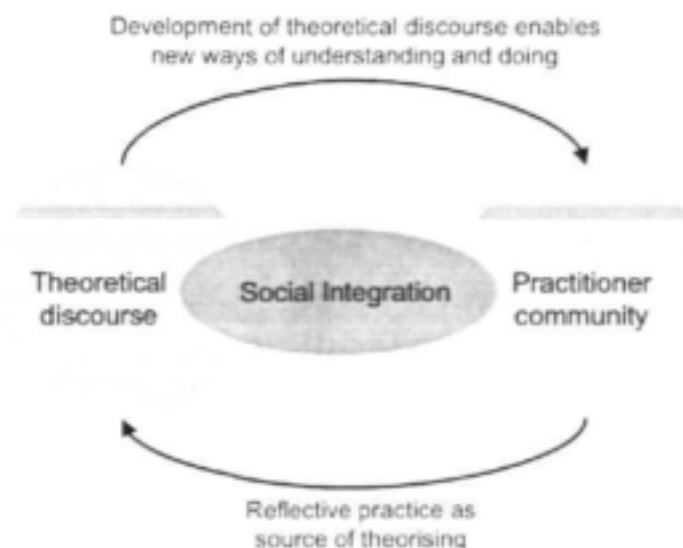


Figure 5.1 Functional components of an R&D programme, where social integration refers to the translation and bridging role necessary to unite two different communities of practice.

The following differences between R&D projects and R&D programmes highlight some of the design criteria for programmes:

- *Levels of participation.* Programmes should cater for multiple levels of participation, e.g. from a core group that provides direction, to peripheral or occasional participants. The less-active members are important for cross-boundary stimulation and transfer of messages and may gradually become more involved as they acquire related knowledge and develop confidence. Conventional project teams have little tolerance for such marginal involvement.
- *Outputs versus outcomes.* Projects are strongly output oriented, where certain tangible products need to be delivered by a certain date. Programmes have a stronger emphasis on intangible value creation, such as development of relationship and knowledge sharing. As such, programmes tend to enable achievement of desirable outcomes more than is the case with most projects.
- *Effectiveness and efficiency.* Projects are commonly managed to achieve cost and time efficiencies. However, learning has to take place effectively to deliver its full value. Programmes provide the space to balance efficiency with effectiveness.
- *Flexibility to alter course.* Where projects have pre-determined objectives that can rarely be changed or expanded on, programmes allow ongoing adaptations to the overall course.
- *Catering for diversity.* Effective teams often self-organise around personal networks and in their early stages display relative cultural homogeneity. Over time, these teams tend to get demographically more diverse in composition. Programmes with their longer time frames cater better for this diversification of participants than projects.
- *Time frames and cost.* Given the above, it must be realised that programmes have to operate at longer time frames (ten years) than what we are accustomed to in a project-driven world. There are also costs associated with running effective programmes that are difficult to account for since many of the necessary outcomes, such as trusting relationships, are intangible.
- *Leadership style.* Successful "programme leadership" requires a different set of skills to "project management". These leaders are also referred to as developmental leaders, contagious leaders or generative leaders, and must have intrinsic legitimacy in the programme.

5.5.2 Keeper of the learning system

If the water institution would like to maintain a learning system for the field of policy development, implementation and review in the water sector, who should be the keeper of the learning system? Wenger (2004) distinguishes between two types of keepers, namely:

- Emergent governance, where learning bubbles up from a distributed system of interactions (where NGOs, academic groups, and various government bodies all play an equal role).
- Stewarding government, where learning derives from a concerted effort of by a central agency to act as the keeper of the process.

Which form of governance, or perhaps a hybrid, would work best is unclear. The emergent governance model corresponds more with the concept of communities of practice. On the other hand, if the stewarding government model succeeds in yoking together a network of learning activities with appropriate support, communication channels, and distribution of risk and benefits, then the learning of the whole system as well as the contributing parts should be increased. Care should be taken that yoking should not be seen as homogenizing of efforts and results, but rather to create some learning interdependence among the participants (Wenger, 2004).

5.6 Multiple-track approach for training and capacity building

It is suggested, based on our personal experiences in the project team, and interactions with participants in the policy seminar as well as senior practitioners in the field, that appropriate training and capacity building programmes would need to be developed along three major, interdependent lines:

- Professional training via in-service short courses and programmes, which requires identification of appropriate adult training models as well as appropriate course material and evaluation tools.
- Graduate training through thesis and coursework.
- Mentorship or apprenticing programmes which are carefully tailored and which themselves require supporting material and networks to be established.

All of these three types of intervention must be designed with the objective of supporting sound decision making in policy development and policy implementation, from regional through national to local levels.

It was clear from discussions with many of the participants in the two policy seminars that high-level training and information on generic public policy management is of limited value unless a person has at least some on-the-ground experience in an agency position (line function or supporting) to provide a context for the new knowledge.

Yet it was also made very clear to us by the participants, and through our own personal career experiences, that the quality of one's technical work in a government or agency position can be greatly enhanced by understanding something of "the bigger picture" of public policy cycles. In simple language, this means that if you know where your scientific or technical contribution is going to fit in the larger scheme of things, your outputs are better tailored to support that scheme. If you know where you fit in the policy cycle, this makes it easier to know who is going to use your scientific or technical products or information, and how these will be used. Hence you can strive for a closer match to the needs of that user or group of users. Co-operation can then become a natural way of doing business for people working in different parts of the policy cycle, since the need for "turf protection" tends to fall away once people better understand their relationships, roles and responsibilities within the bigger picture.

There are at least three possible career tracks in government, none of them exclusive (people can and often do work in one or more tracks, concurrently or sequentially):

- line managers responsible for implementation of policy and strategy
- strategic policy centres responsible for initiation, development and establishment of policy
- technical specialists in supporting functions, assisting both line management and strategic policy centres.

At different stages in their career, people will be working on aspects of policy at different levels, from small-scale local issues to large-scale national, regional and even global policy and governance processes. It is likely that the most effective strategy for training and capacity building to enhance policy development, implementation and review will address all three of the career tracks (specialist, line function and strategic policy function), and will provide material and opportunities appropriate to the career stage (early, middle and late), in a mix of theoretical and experiential learning.

Chapter 6 – Recommendations and Conclusion

Dirk Roux and Heather MacKay

A range of quite specific issues relating to capacity building, policy research and policy management has arisen from this project, and these issues have been presented and explored in more detail in the relevant chapters of this report. Reflecting on the original objectives of this project, which were all aimed at improving the quality of the development and implementation of water and related policy in South Africa, we make a number of general recommendations in this chapter.

6.1 Recommendations

The primary general recommendation is that the South African "water institution" should rapidly establish and implement a strategy for ensuring that the core of capacity for strategic policy development and management is maintained, through the provision of appropriate institutional or organisational mechanisms as well as through building individual and collective capacity amongst professional practitioners at various appropriate levels.

It is recommended that two parallel interventions be initiated and maintained within the professional water sector:

- Firstly, an ongoing programme of training and capacity building in generic public policy management, aimed at developing capacity in people entering the water sector in early or mid-career. This should be designed within a framework which addresses the different knowledge needs of line managers, strategic policy centres and specialists. This intervention would be focused more on improving generic policy processes.
- Secondly, a vehicle for stimulating high-level debate and action related to the content and impact of water policy. The institutional "home" for such a vehicle needs to be identified: there are advantages and disadvantages to locating this either within a government agency or as a less formal network outside an agency. This intervention would be focused on examining policy content, initiating critical review as and when necessary, and generating and analysing appropriate policy options.

Research priorities in the area of water related policy developments in South Africa are as follows:

- A specific strategy on policy management, especially ongoing review and further development, over the next ten-year period will improve planning. This should include the development of meta-policy to apply across relevant sectors.
- The inter-dependency between policy implementation and institutional development is recognised but poorly understood. We need to improve our understanding of institution building in the context of good public policy governance. This includes aspects such as co-operative government and governance in water, intergovernmental relations and coordination, human resource development and financial viability of various institutional architectures.
- The development and deployment of capacities for policy analysis, coordination, evaluation and review in DWAF.
- Policy analysis is required to provide guidance and facilitate coherence and coordination at inter-departmental, southern African and international levels.
- An assessment of the need for and nature of further policy developments required in the water sector over the next decade.

- Development of a monitoring and evaluation system for the water sector as a whole, including a sector-wide performance management system as well as a prioritised evaluation portfolio.
- To develop a story telling programme to serve as a knowledge sharing vehicle and as a case study database for research.
- As we monitor and evaluate policy implementation, to identify retrospective lessons that can be used for improving efficiency and effectiveness of the policy development process.
- Based on the recognition of the value of a sound technical basis in the policy development phase, how can we build on this learning culture and maintain and improve the necessary interdependence between researchers (knowledge creation and verification) and managers (knowledge application) through the next phase of policy implementation, i.e. so that the ongoing process of policy development, implementation and review is informed by a combination of theory and practical experience.
- Explore dependencies between vision/leadership, understanding, strategic management and operational management – all these are necessary, if one or more is missing or weak, then the whole initiative can collapse or be significantly weakened.
- Review training programmes currently on offer.

6.2 Conclusion

The over-riding conclusion that we have drawn from this project is that the value of opportunities to reflect and consolidate individual and collective learning cannot be over-estimated. In the South African water sector today, the real and pressing challenges of delivery of basic water and sanitation services to all, the underpinning of our industrial and agricultural foundations, and the protection of water resources for future sustainability, tend to be overwhelming and all-consuming. Ever trying to do more with few people and limited resources, professionals in the water sector tend to miss or undervalue opportunities to take our own learning to higher levels through reflection and analysis. Yet this reflection and analysis allows us to do our own work better and enables others to learn from our successes and failures, so as to contribute to ongoing improvement in service delivery, economic activity and social development through sustainable utilisation and management of water resources.

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APPENDICES

APPENDIX A

Summary of proceedings of policy analysis workshop, 7 February 2003, CSIR

APPENDIX B

Training seminars: Programmes, Presenters, Participants and Debriefing Sessions

APPENDIX C

Full text versions of the six issues papers (on CD attached to back cover)

APPENDIX A

Synthesis of proceedings of a policy analysis workshop held on 7 February 2003 at CSIR

Prepared by Tamsyn Sherwill

Attended by:	Heather McKay	WRC
	Dirk Roux	CSIR, Environmentek
	Bill Rowlston	DWAF, Strategic planning
	Johan van Rooyen	DWAF, Strategic planning
	Christo de Coning	Wits, School of Policy and Development Management
	Tamsyn Sherwill	Wits, Centre for Water in the Environment

1. Introduction – purpose of workshop within the larger project

The focus of the project is South Africa's new (1998) national water policy – the process by which it was developed and the implications of this for its successful implementation. Developing this policy was a learning experience for all concerned and this project presents an opportunity to reflect on this process, and to document the learning gained. The aim of this workshop was to begin the task of surfacing and documenting these experiences, by bringing together people who were involved in both water policy development, and current implementation, with policy analysis expertise. This will guide the process and purpose of the policy analysis intended, and the outcomes of the project in the form of issues papers and the content of a training course.

2. The challenge of implementation

2.1 History of implementation thus far

- Since 1996 the policy development process has progressed from initial principles and fundamental objectives to: the policy White Paper (May 1997); the law in the form of the National Water Act (1998); publication for comment of the first draft of the National Water Resource Strategy (NWRS) (August 2002).
- In the absence of CMA's, interim Catchment Management Strategies are being developed by DWAF in collaboration with its regional offices. This (the Interim Strategy Process or ISP?) is being led by Johan van Rooyen.
- An important part of the new water policy is the creation of institutions, in the form of CMAs for each of 19 WMAs. Powers and functions will be devolved to these. DWAF is therefore currently restructuring to become more policy-and regulation-oriented.
- No CMAs have been established yet. One is close to being established, but could take another 5 years to be completely functional. It could take about 12 years before all the CMAs have been established and are fully functional.
- The process of compulsory licensing has not yet begun, but will be run as a pilot project in a selected catchment first.

2.2 Problems with policy

- Policy development process did not predict resource requirements of implementation. There was a lack of detailed, formal analysis of the financial implications of implementation within the policy development process. The implementation process is currently under-resourced because the policy was approved subject to the condition that there would be no additional allocation of finances or personnel for its implementation.
- Slow internalisation of new policy and principles. There is poor knowledge and misunderstanding of policy contents and implications within DWAF, particularly in the regional offices. Non-governmental stakeholders and resource users also have a poor understanding and knowledge of the new water policy.
- Policy and Act provides little guidance as to details of implementation. Since the Act was passed there has had to be further development of guidelines for implementing its requirements e.g. determining the Ecological Reserve, and this process is ongoing.

2.3 Institutional problems

Problems within the strategic and business planning process.

- *No transparency as to financial allocation process.*
No feedback is provided to managers as to the reasons for budget cuts, it is not clear whether or how priorities are determined, whether there is an awareness of interdependencies of projects, and whether there has been a conscious decision to delay current projects instead of future ones. There seems to be use of across-the-board percentage budget cuts to all units, instead of a prioritisation procedure.
- *No multi-year project-specific integrative budgeting process.*
Most projects (e.g. Compulsory Licensing) will involve several directorates and will need to be budgeted for in their entirety. However, budgeting is done on the basis of functional units, not projects. There doesn't seem to be a project management ethos, or more importantly, a programme management ethos within DWAF.
- *No high-level, integrative implementation management structure/division/role within DWAF.*
An integrating committee did form part of the policy development process but this was dissolved after the Act had been written. It was later re-instated as the Team for Implementation of the National Water Act (TINWA) but this is not a high-level grouping within DWAF (and its chair has recently been transferred elsewhere). There is currently not even a Chief Director who has the responsibility of integrating the implementation of the NWA. However with restructuring of DWAF that is currently taking place the task of implementing the NWA is being incorporated into the strategic plan of the department, and Key Functional Areas are being designed around this strategic plan.
- *Poor communication and knowledge transfer systems.*
There is a particular communication gap between DWAF Head Office and the regions. It is not enough for Head Office to simply give instructions to the regions, or to give a message once – an education process is needed to achieve true understanding and 'buy-in'. Currently not enough time and resources are allocated to the long-term process of entrenching a message/approach.
- *Inability to measure, monitor and evaluate achievement of objectives.*
It is not possible to gauge, or report on, the degree to which transformation is happening because no criteria have been developed by which this could be measured. Vague

objectives, a lack of indicators, a lack of resources to monitor and a lack of political will to invest in monitoring and evaluation processes all hinder the department's ability to measure progress in implementation of the new water policy. There are very few people within DWAF whose dedicated job is the review of policy or the monitoring of implementation.

3. Policy analysis, and the generic policy process model: Application to the NWA, policy and implementation

3.1 What is policy analysis? (theory)

There are 4 main areas for evaluating public policy exercises:

- General conceptual approaches
 - Definitions of policy
 - Ideological approaches, e.g. the political economy of water
- Policy analysis = the systematic generation of policy options
 - 23 well-known techniques, e.g. Cost-Benefit Analysis, forecasting, scenario planning, the Delphi technique
- Policy process
 - The phases of developing policy e.g. where do/did you start, what do/did you do next? Can be used post-policy for evaluation purposes, or as a model for forward planning.
 - Has become especially prominent in SA. Most international models (e.g. UK – Harvard & Grimm) are simply process models for policy analysis, but there are broader policy processes than the analytical phase.
- Institutional arrangements for policy management
 - E.g. what are the governance arrangements for water, how does the political and executive work?
 - How is capacity structured in governance at various levels?
 - Intergovernmental/systems level – what capacity exists in SA for water policy management, including e.g. scientists, people at universities?
 - Organisational level – How is the DWAF structured, is there a policy unit and an information unit, do they interact, what are the leadership responsibilities with regard to policy?
 - Project – how do the parts interrelate? E.g. who was on the analytical team for review of the water policy? Who led the team, did the team have the technical capacity, were participative arrangements in place, who led the exercise, were there various task teams and were their roles and responsibilities clear, how did they interact and interrelate?

3.2 Models of policy development: Institutional models

- Mark Moore model
 - Capacity in a policy exercise is determined by 3 things:
 - Political ownership
 - Administrative and operational feasibility
 - Substantive value (quality of policy content)
- Chris Heymans (?) formerly of DBSA
 - One can interrogate the capacity available in a team in terms of:
 - Strategic capacity – e.g. Does the team have foresight etc.
 - Analytical capacity – Were there people on the team who were able to do policy analysis, including technical analysis?

- Management capacity – e.g. normal line managers for managing funds etc.

3.3 Process models of policy development: The Generic Policy Process Model

The Generic Policy Process model is a South African model that describes the generic steps involved in a policy development process. These steps are as follows:

- **POLICY INITIATION/REVIEW**
This is usually initiated by the Minister, but can be triggered by civil society, NGO's etc.
 - Considerations:
 - When would be an appropriate time to review policy?
 - Did the Minister have a mandate to initiate or review policy?
 - Did a legitimate person start the process?
- **DESIGN**
This phase forces one to plan the whole policy development process 'up-front' (which few government departments did in SA in 94/95).
 - Considerations:
 - Budget?
 - Institutional arrangements, the planning team,
 - Agreement on preliminary objectives of policy process
- **ANALYSIS**
Various policy options are analysed and a recommendation is made. This process can take from 1 week to 3 months to complete.
 - Considerations:
 - Was a serious analysis done?
 - Who did it, who was on the team(s), to what extent did they cooperate with other teams?
- **POLICY**
Drafting of policy for submission to decision-makers.
 - Considerations:
 - Require a skilled person to draft the policy.
 - Who? From within the department, or from outside?
- **DECISION**
The policy draft goes to decision-makers as a recommendation in the form of a cabinet memorandum. Before it is approved the policy is a Green Paper, once approved it becomes a White Paper.
- **LEGISLATION**
This is not a step in the generic model but was added by a SA scholar, Henry Basson (?). The policy is expressed as legislation (Bill → Act). Implementation of policy often begins before the Bill is passed as an Act.
- **IMPLEMENTATION**
- **MONITORING AND EVALUATION**
Several types of monitoring take place during implementation, but monitoring should also take place throughout the entire policy process, i.e. should start in the initiation and design phases.

International process models, e.g. Dunne, start with step C, i.e. analysis. South African scholars added steps 1 and 2 in response to the particular political context of SA in the 1990's, and the strong need for participatory processes. For example, in 1993/94 the President's Council pushed through the Urbanisation White Paper with no consultation whatsoever. This created an awareness of the need for participatory processes, and the introduction of steps such as stakeholder analysis and consultation to reach agreement on the design of the policy process.

Different policies will require different levels of participation/consultation, depending on the degree of controversy involved (and the level of trust that people have in government, and/or the civil service).

A model is only good at what it was designed to do. The generic model was developed in 1995/96 and has required modification since. This process model is good at showing how the phases of policy development follow on from each other, and at indicating the considerations and requirements of each phase. It is not good at 'unpacking' each phase in detail. Other models are more useful for particular phases, e.g. conflict models of decision-making.

In reality, the steps in the policy cycle are not necessarily consecutive. Also, the model provides considerations for each phase, but these are not necessarily requirements.

The model should not be applied directly, but amended till it is relevant to the case in question. An analysis would involve considering for each phase: What happened? Who was involved? How long did it take?

3.4 When should policy be reviewed?

As soon as one has to move outside the Act, or finds that policy is no longer relevant, or that the policy does not provide an enabling environment for developing a strategy, then one is challenging the parameters of policy and it necessitates a review in those areas. This does not imply rewriting the White Paper (should only happen about every 10 years) but one can publish interim policies, where adjustments are made in certain areas only. There is a fine line between policy and strategy. When developing and implementing strategy one needs to ask what the policy consequences of the strategy are. One cannot simply update strategy as circumstances change; one has to consciously update the policy as well.

Legislation is often a better articulation of the detailed requirements of policy and enables policy to be 'tested in the courts'. Major court cases often occur which force changes to policy, even to the extent of reviewing it in its entirety. Legislation and policy move together.

3.5 Application of the Generic Policy Process model to the South African water policy process

The Generic Policy Process Model appears to be applicable to the South African water policy development process. The main phases presented by the model fit what took place for the water policy development, though no overall plan for this process was ever articulated and it appears to have followed the model intuitively. A detailed analysis of the history of the water policy using the generic model will require further information to be collected than is available at present. Interviews will need to be undertaken with the main participants in the process: e.g. Barbara Schreiner, Len Abrams, Robyn Stein, Janet Love.

The aim of this project is not to review the water policy but to document and analyse the history of its development, using the framework provided by the Generic Policy Process Model. It is recognised that this research cannot simply analyse the past but must provide direction for the

future – in particular, it must help to address the policy implementation challenge. The potential benefits of this policy analysis exercise are:

- The analysis will provide recommendations for future policy review exercises, in the water sector and elsewhere.
- Many of the problems currently being experienced in implementation are a result of certain features or phases of the policy development process. Addressing these implementation challenges will benefit from an improved understanding of their origin.
- 'Implementation' and 'Monitoring and Evaluation' are phases of the Generic Policy Process model on which this analysis could focus, with a view to influencing ongoing implementation and evaluation. However a detailed analysis of implementation will benefit from the application of more appropriate models dealing with 'strategic and business planning' rather than the Generic process model.
- The analysis may indicate areas of policy that need to be reviewed, and this could assist implementation.

4. Monitoring and evaluation (M&E)

It was decided that the project and therefore the workshop should focus its attention on the last 2 phases of the policy process cycle, i.e. 'Implementation' and 'Monitoring and Evaluation'. Implementation issues featured throughout the workshop and resulting synthesis. 'Monitoring and Evaluation' is addressed more specifically here.

4.1 Theory

It is important to have ongoing analysis of policy taking place within a department, which should therefore have information units and research units. The policy process model is not sequential. Policy is continually being challenged, e.g. by academic research, or by NGO's pushing for review.

"Working definitions" of the Monitoring and Evaluation process:

Evaluation refers to an assessment of performance against agreed-upon objectives. (Hence one needs to establish what the objectives are.)

There are different types of evaluation:

- Strategic and business planning process. E.g. MTEF – one evaluates the objectives of the department and how to implement them on an annual basis.
- Performance management.
- Specialised evaluations e.g. cost-benefit analysis.

Monitoring refers to an assessment of performance against agreed-upon objectives over a specific period of time, where information is collected on a regular basis. Monitoring is based on 4 things:

- Objectives
- Criteria
- Indicators
- Information base

Example: the Maputo corridor SDI

Objective = making infrastructure available to allow market forces to operate.

Objectives	Economic growth
Criteria	GDP; household income
Indicators	Income per household
Information base	Stats SA data

4.2 Value and challenge of implementing M&E system for NWA implementation.

Potential benefits:

- It may be quite simple to determine the 'objectives' for implementation of the water policy, but very difficult to establish criteria and indicators for these. But it is often through the difficult process of reaching agreement on criteria, that agreement is reached within an organisation on how performance will be managed. This has a unifying effect as it directs people to focus their efforts in the same overall direction.
- The process of designing a M&E system can lead to a review of strategic objectives. Often objectives are vague. If a M&E approach is institutionalised within an organisation over time this will force them to examine their objectives, and to formulate them in a way that ensures they are achievable.
- Putting a monitoring system in place for the NWRS will be able to indicate for each of the objectives prioritised in the strategy, whether people were identified to carry out these tasks, and ultimately whether the objectives were achieved. Once people realise X is being monitored they will start doing X, or realise that there is no one responsible for doing X.
- A functioning M&E system will enable managers to demonstrate measurable progress where this occurs. It will help to motivate people because they can see they are headed in a particular direction, and that they get acknowledgement for what they have done.
- There is a need for institutional monitoring, particularly of CMA's. CMA's will be almost autonomous bodies, and DWAF will need to keep an 'arm's length' relationship with them. A rigorous M&E system will need to be put in place to measure CMA delivery and performance, and to make sure the CMA fulfils the requirements of being a self-driven 'lean-and-mean' organisation.

Likely challenges:

- Some of DWAF's objectives are relatively easy to measure and monitor e.g. the number of people who are served with water, and these are already being monitored by DWAF. But some of the Key Functional Areas (KFAs) are very vague. E.g. 'Ensure an equitable and reliable source of water for social and economic development'. Such objectives are always marked as 'ongoing' and would need to be rephrased in order to be measurable. Another challenge would then be to determine what information would need to be collected. For many things in the DWAF strategic plan, there is probably no information that is collected, or else the wrong information is collected.
- There is a danger that objectives will be set glibly. It is easy to set targets, but often the effort needed to achieve them is enormous. There needs to be a thorough assessment of resource requirements and time frames, and integration and prioritisation of all objectives within a strategic plan.

Suggestions for introducing a M&E system to a department:

- One option is to take one area of a department and to make sure that the approach is sound before introducing it to the rest.
- Pick a particular functional area, and use a lower level objective within this.
- Pick a difficult area or objective, so that one knows it will work with the easier ones.
- Pick an objective that is widely meaningful (that has relevance for others in the department).
- Ensure that the ME system is very carefully thought through so as to be integrated with the other things that are already being done. Know the implications for the rest of one's operations.

5. Potential workshop outputs

5.1 Some messages for policy-makers and implementers in the water sector (and elsewhere)

- Implementation is, and must be, a long-term process. Patience and endurance is required. It needs to be recognised that the water policy is currently within a 20-year implementation phase. Don't respond to the problems experienced in implementation by rewriting policy to something that is achievable in the short-term. If one focuses on short-term goals and expectations one will inevitably lose the more important long-term benefits. There is a danger that such a long-term perspective will be lost with pressure for short-term political approval.
- Transformation takes time.
One can't change people's behaviour with an instruction - 'buy-in' to the motivation for this change is required. Achieving transformation is not a once-off event, it is an education process. A communication strategy is needed, using knowledge transfer techniques like case-studies and storytelling. It is valuable for people to realise that they can expect to feel discomfort when involved in a transformation process – knowing this is comforting.
- There is a need for greater communication, coordination and integration at all levels. Relationships within the organisation (organographs) are more important than organisational structure (organograms) for understanding and improving performance.
- Use all available human resources.
There is a larger resource base to draw on for knowledge and implementation than just DWAF. But some degree of alienation exists. There is a danger of killing innovation and energy by formalising participatory processes and institutions.
- Some review of parts of the water policy may be shown to be necessary as implementation proceeds.
- There is a need for ongoing monitoring of policy and its implementation - policy is always under development in some sense (the cycle continues, and is not consecutive). Review of policy needs to be a *conscious* event.

5.2 Some specific recommendations for DWAF

- *Interaction between Head Office and the Regions is vital.* This process is already taking place but needs to be recognised and possibly formalised.
- *The issue of communication needs to be addressed,* possibly through introduction of a communication strategy.
- *The strategic and business planning process is a source of confusion and frustration.* The budgeting process needs to be more transparent, and to take into account dependencies within and between projects. There is a need for multi-year, project-based budgeting, (instead of simply setting annual budgets for functional units).
- There needs to be recognition of the need for project- (and programme-) oriented management of NWA implementation. Implementation should be planned as a project. It cannot be managed operationally in its pilot phase.
 - There is a need for integration of implementation of the NWA at a senior management level.
 -
 - There is a need for a monitoring and evaluation system for policy development and implementation.
 -
 - There is a need for more staff with policy development expertise and function.

6. Project outputs

6.1 Documentation of policy process history

Most of this information is only accessible by speaking directly to the people involved. Interviews will have to be conducted with key participants in the process.

6.2 Training courses

Purpose:

- It is intended to transfer the learning gained within the project in innovative ways. Two training courses will be held as part of, and funded by, the project, but it is hoped that this transfer mechanism will ultimately become self-sustaining. The 2-day courses will involve lectures but will also be interactive - the intention is to both transfer and gain knowledge with which to refine and develop further training courses.

Important focus areas:

- Present the generic policy process model and apply it to the water policy:
 - But, if one conducts the course with a group of managers they are unlikely to have any experience or knowledge of the history of the process. This information will need to be presented to them. People will then indicate the areas on which they would like to focus. Institutional frameworks could also be examined.
- Focus on Implementation, and include a topic on business planning, and Monitoring and Evaluation:
 - There are tools in strategic and business planning that are more appropriate than the policy process model for use with the Implementation and Monitoring phases, e.g. strategic and business planning cycles, planning and evaluation cycles.

Likely course contents and schedule:

- Day 1: Morning – Theory; Afternoon – Case study
- Day 2: Divide into 2/3 learning groups and conduct an exercise on implementation, focussing on a particular implementation objective and working systematically through it.

Other suggestions:

- Use the message of project vs. operational management when addressing the issue of Implementation.
- Include some content on the process of adopting new technologies:
 - E.g. How to introduce new technologies into a system and how to phase out old ones, including concepts such as the maturity of technologies.
- Use examples from other (public) sectors / government departments:
 - The course must present a public management perspective – most people will have been exposed more often to private sector theories and examples. One can also use examples from the River Health Programme, and the Cape programme.

Participants:

- It was decided that the first workshop will be restricted to participants from DWAF, and will be targeted at senior management. (Suggestion to invite all the chief directors [=18 people?], and regional directors in Water Resource Management, and then possibly also to include Water Services staff.). The second course will be thrown open to people from universities etc.
- The first course is scheduled for 21 and 22 May, 2003, at Roodeplaat Dam, and will be presented free of charge.

7. What next?

Will this forum for discussion continue? It was decided that this might be something that should happen after the first training course. It was also suggested that Ash Seetal should be invited to the next discussion, and that this could focus on one or two selected 'gap' areas.

APPENDIX B

Training course and seminar: Programmes, Presenters, Participants and Debriefing Sessions

1.1 Training Course Programme

SHORT COURSE ON POLICY DEVELOPMENT AND IMPLEMENTATION IN THE WATER SECTOR: REFLECTION AND LEARNING

BACKGROUND INFORMATION

The South African water policy is considered to be very progressive and one of the best examples internationally for sustainable management of resources. The legislation which supports the policy is relatively sophisticated, yet it must be implemented in a developing country context. The long term success of the national water policy will depend on strong, sustained and consistent leadership from people who can guide the implementation process through the difficult first stages. In exploring the experiences of different individuals during the development of national water policy and in the early phase of implementation, it is clear that the majority of these people have and are finding their way by trial and error and that they perceive the implementation challenge as daunting. At the same time there is still very limited understanding of the interrelationships between policy development and implementation, with the added shaping forces of politics, economics and social factors. Few of those involved in developing and implementing water policy have been formally trained or equipped with the skills to manage high-level policy processes and programmes.

This course forms part of a project funded by the Water Research Commission, which aims to consolidate available knowledge on how to make the development and implementation of national water policy as effective and efficient as possible. The course has been designed to facilitate learning through personal reflection and knowledge sharing. The overall aim is to capture some of the insights and knowledge that has accumulated over the past decade and to diffuse this knowledge for the benefit of current as well as future leaders in environmental policy domains.

COURSE OBJECTIVES

By the end of the course participants will:

- Understand basic public policy concepts and frameworks
- Be able to apply a generic policy process framework to water policy development and implementation
- Be able to develop implementation strategies for policies and programmes in the water sector
- Understand the generation of policy options to meet the needs of a changing society

COURSE CONTENT

The following main themes will be addressed during the course:

- Frameworks for public sector policy development, implementation and evaluation
- Application of generic frameworks to water policy
- Effective implementation of policies and programmes: planning; monitoring and evaluation; institutional capabilities; logistics
- Options for continuous revision and improvement

Tuesday 20 May 2003	
SESSION A	
WELCOME AND INTRODUCTION	
12h00	Registration
12h30	Lunch
13h15	Welcome and course introduction
13h45	Expectations and outcome-based objectives
SESSION B	
POLICY DEVELOPMENT	
14h15	Overview of comparative policy frameworks
15:45	Tea
16h00 – 17h00	Group discussion on lessons from experience in water sector
Wednesday 21 May 2003	
SESSION C	
IMPLEMENTATION OF POLICIES AND PROGRAMMES	
08h00	Overview of approaches to implementation
09h00	Group discussion on key considerations for implementation in the water sector
10h00	Tea
10h15	Update on national Water Resources Strategy (Bill Rowston / Barbara Schreiner)
	• Developmental process • Implementation strategy
11h00	Learning Groups: Implementation challenges
12h00	Report back by Learning Groups
13h00	Lunch
SESSION D	
POLICY DEVELOPMENT AND IMPLEMENTATION FOR NATURAL RESOURCES	
13h45	Implementing IWRM policies in a multi-national or trans-boundary environment (Pete Ashton)
14h45	Doing while learning: Implementing in parallel with development (Heather MacKay)
15:45	Tea
16h00	Diffusing knowledge for water resources management (Dirk Roux)
Thursday 22 May	
SESSION E	
MONITORING AND EVALUATING THE EFFECTIVENESS OF POLICY	
08h00	Conceptual overview of monitoring and evaluation
09h00	Group discussion
10h00	Tea
10h30	Learning groups: key considerations for institutionalising monitoring and evaluation capability in the water sector
11h30	Report back by Learning Groups
12h30	Course evaluation and closure
13h00	Lunch

1.2 Course participants

Name	Affiliation	E-mail
Ash Seetal	Water Allocations	seetala@dwaf.gov.za
Barbara Schreiner	Policy & Regulation	bschreiner@dwaf.gov.za
Barbara Weston	Water Abstraction and Instream	ded@dwaf.gov.za
Bill Rowiston	Policy & Strategy Co-ordination	billr@dwaf.gov.za
Bonani Madikizela	Resource Quality Studies	madikib@dwaf.gov.za
Chris Swiegers	Policy & Strategy Co-ordination	swiegersc@dwaf.gov.za
Desmond Stevens	Working For Water	stevend@dwaf.gov.za
Ephraim Mokwena	Water Use Efficiency	qtg@dwaf.gov.za
Fortunate Makhubu	Resource Quality Studies	makhubf@dwaf.gov.za
Harrison Pienaar	Resource Directed Measures	harrisonp@dwaf.gov.za
Hayley Rodkin	Water Use Efficiency	rodkinh@dwaf.gov.za
Jabula Nkomo	Water Services: Planning	vdb@dwaf.gov.za
Johnny Beumer	Policy & Strategy Co-ordination	beumerj@dwaf.gov.za
Kenneth Gadudu	Executive Support	gaduduk@dwaf.gov.za
Laurie Less	Working For Water	lessl@dwaf.gov.za
Loraine Fick	Water Abstraction and Instream	fickl@dwaf.gov.za
Michael Singh	Water Use Efficiency	qtf@dwaf.gov.za
Mike Warren	Water Abstraction & Instream Use	mike.warren@dwaf.gov.za
Minah Mandiwana	Geohydrology	wed@dwaf.gov.za
Noxolo Ncapayi	Water Abstraction & Instream Use	ncapayin@dwaf.gov.za
Peter Van Niekerk	Integrated Water Resources Planning	iaa@dwaf.gov.za
Sibulele Gqada	LIDS	vhe@dwaf.gov.za
Simon Mpamonyane	WS: Institutional Development	mpamonyanes@dwaf.gov.za
Solly Mabuda	Options Analysis	iza@dwaf.gov.za
Thandie Thongwana	Water Services	thongwanat@dwaf.gov.za
Themba Duma	Resource Quality Studies	dumat@dwaf.gov.za
Thuli Khambule	Water Services – Policy & Strategy	khambulet@dwaf.gov.za
Tshepo Rakimana	HRM	rakimanat@dwaf.gov.za
Valerie du Plessis	Water Abstraction and Instream Use	duplessisv@dwaf.gov.za
OBSERVERS		
Stefano Farolfi	Centre for Environmental Economics & Policy, UP	sfarolfi@postino.up.ac.za
Tamsyn Sherwill	Wits	tsherwill@yahoo.com
PRESENTERS		
Prof Christo De Coning	Wits	mmp@global.co.za
Dr Dirk Roux	Environmentek	droux@csir.co.za
Dr Heather MacKay	Water Research Commission	heatherm@wrc.org.za
Dr Pete Ashton	Environmentek	pashton@csir.co.za

1.3 Course evaluation and comments sheet

COURSE EVALUATION & COMMENTS

SHORT COURSE ON POLICY DEVELOPMENT AND IMPLEMENTATION IN THE WATER SECTOR:
REFLECTION AND LEARNING

CSIR CONFERENCE CENTRE, PRETORIA - 20 TO 22 MAY 2003

The rating scale is 1 to 5, where 1 is very bad and 5 is excellent

CRITERIA	Rating				
	1	2	3	4	5
COURSE EFFECTIVENESS					
Your understanding of basic public policy concepts and frameworks					
Your ability to apply a generic policy process framework to water policy development and implementation					
Your ability to develop implementation strategies for policies and programmes in the water sector					
Your understanding of the generation of policy options to meet the needs of a changing society					
Would you recommend the course?	Yes / No				
Other					
COURSE PROGRAMME AND PRESENTATION					
Facilitation					
Group participation					
Time allowed for each session					
Time allowed for discussion					
Balance between theory and practical examples					
Interaction between participants and speakers					
Overall quality of presentations					
Should more time be allocated for this course	Yes / No				
Other					
THE COURSE AND THE VENUE					
Course advertisement					
Pre-course information					
Conference facilities					
Food					
Other					

1.4 Debriefing notes – Training Course

Notes from debriefing meeting held at the Water Research Commission on 27 May 2003
(Compiled by Liesl Hill)

Present

Heather MacKay	WRC
Christo de Coning	Wits
Tamsyn Sherwill	Wits
Dirk Roux	Environmentek
Liesl Hill	Environmentek

May 2003 short course

- The primary aim with this "course" was to seek integration between the theoretical concepts and processes of policy development and the application context of water resources management.
- The objective was not so much to train people, but rather to increase awareness, transfer or share knowledge, provide technical assistance and brainstorm ideas in terms of policy in the water sector.
- A summary of the short course evaluation results, received from participants, is included as well as the feedback from learning groups for the task on *"key considerations on how strategy can be implemented"*.

The next event

- The first event was referred to as a water policy short course. However, after thorough consideration we realise that it is not our intention or mandate to develop a "training course" but rather to present a professional seminar. Accreditation would therefore not be an appropriate option. The aim is for this seminar to become an annual highlight on the water policy agenda. The structure and content of the seminar should be sufficiently dynamic to always reflect latest developments and thinking. In essence, no two seminars would be exactly the same.
- Given the feedback received from participants, the duration of the seminar would in future be three full days. A separate day would be devoted to each of the main themes, namely policy development, policy implementation, and monitoring and evaluation.
- The next seminar should not exclusively be for DWAF officials and should allow people from outside of DWAF to contribute and gain from the knowledge sharing. A minimum number of places (for example 50%) would be reserved for DWAF.
- Provisional dates for the next seminar are 10 to 12 February 2004. A flyer in this regard will be distributed during September 2003. The programme for the seminar will be finalised during November 2003.

Communication

- A project webpage (likely to be hosted by the WRC) will be set up where progress, information on the seminar, draft papers, related literature and other links can be viewed and accessed. This will be communicated to the May course participants.

1.5 Summary: Short Course Evaluation Results

Participants: 31 (including 2 observers)

Feedback: 20

The rating scale is 1 to 5, where 1 is very bad and 5 is excellent

CRITERIA	Rating				
	1	2	3	4	5
	Very Bad – Bad		Good - Excellent		
COURSE EFFECTIVENESS					
Your understanding of basic public policy concepts and frameworks			8	11	1
Your ability to apply a generic policy process framework to water policy development and implementation		2	9	8	1
Your ability to develop implementation strategies for policies and programmes in the water sector	1	1	7	11	
Your understanding of the generation of policy options to meet the needs of a changing society	2		10	8	
TOTAL	3	3	34	38	2
%	3.7	3.7	42.5	47.5	2.5
	7%		93%		
Would you recommend the course?	Yes (20) No (0)				
Comments / Recommendation					
• Practical exercise/ assignment in working groups • Perfect for interns • Involving implementers of policy, i.e. Regional Offices needs to be considered • Interested in development of strategies and policies – should include practical exercise to develop a strategy, etc. • Course will only be effective if senior management attend and realise that they have to support the “formalisation” of policy, strategy and guideline development in DWAF. REAL support necessary, e.g. endorsing policy frameworks, templates, etc. • A lot more time could have been spent on ‘strategy’ content as opposed to ‘roll-out’ • Involvement of other water sector role players would add value • Need a framework / guideline as to what needs to go into a policy/strategy; how to evaluate a policy/strategy • Was more of a dumping session and identifying of gaps – need a course which explains how to develop policy • Course will assist in improving my work. I have a better understanding of the different levels of policy development • Need for DWAF case studies • Disaggregate aspects of course to suit attendee groups					

- Look at who develops policy and who implements – need to link these two groups for proper synergy
- Use of a 'progressive' case study to illustrate failures and successes of D&I (??)
- Upfront and clear distinction between various 'level' of policy development, i.e. pre-law policy D&I ta.... vis operational policy D&I should be made.
- Course needs to be formalised and offered to a wider range of DWAF officials – all levels of staff, particularly younger members of staff who will carry the knowledge into the future.
- Differentiate emphasis for P&R and operational staff in respect of policy development and implementation respectively.
- Course should be registered with SAQA for its sustainability and be able to issue out test and certificate.
- Would like to increase/encourage this course to be grounded in a Change Management paradigm
- The level (rank) targeted should be indicated
- Case studies and examples should be from the water sector
- Objectives were not clearly set.
- Not enough time to encourage and internalise these key concepts – suggest prior handout of reading and reference material
- The course was quite good, but needed to focus more on the water sector – especially since such short time was available

COURSE PROGRAMME AND PRESENTATION

Facilitation				10	10
Group participation		1	3	11	5
Time allowed for each session	1		5	8	6
Time allowed for discussion		1		10	9
Balance between theory and practical examples	1	2	7	7	3
Interaction between participants and speakers	1		1	9	9
Overall quality of presentations (-1)		1	4	9	5
TOTAL	3	5	20	64	47
%	2.1	3.6	14.3	45.7	33.7
	6%		94%		
Should more time be allocated for this course (-1)	Yes (17) / No (2)				

Other

- Course should be 3-4 days long and include a practical exercise
- Look to group people appropriately. Diversity is great, but some choose to participate nominally – not good!
- Lengthen sessions according to need
- Water sector cases would add more value – other sectoral approaches were very valuable though
- Regulation component also important to include in process
- Include how would one pilot test a policy
- Will be good to share a course with other sectoral stakeholders at different levels (local; provincial; national)
- Need to know how the recommendations made are going to address commitment from managers.
- Dirk's presentation left me slightly confused as per it's relevance and context. I believe KM is key to overall policy development but this short course should have been more focused and content specific – was too general for many of us.

- In a pedagogic sense I think the content and approach should be changed/improved
- Need more practical examples.
- Discussions should have more practical examples.
- Discussions should be allowed more often among groups.
- Examples / case studies should be more DWAF specific
- Timing was bad (short) – more time should be allocated in future. Why was the whole of Thursday not utilised?
- Excellent done!!
- Facilitator should be more representative
- Slides should have been included in file
- The course was biased towards water resources and issues of water services were totally sidelined. An integrated approach would have been better.
- Pete's presentation very interesting – don't think it was relevant to the course though

THE COURSE AND THE VENUE

Course advertisement		3	7	7	3
Pre-course information	3	3	7	6	1
Conference facilities		2		7	11
Food		1	1	10	8
TOTAL	3	9	15	30	23
%	3.8	11.3	18.8	37.5	28.8
		15%	85%		

Other

- Definitely have a 2-3 pager introducing the objectives of the course and what is expected to be achieved
- Some of the written material should have been provided prior to the course to facilitate more informed participation
- Conference room too small for the group.
- Food excellent – greater variety juices please
- The internal process of nominating participants was poor.
- Pre-course information was poor

This is an excellent foundation pilot course – has lots of value to contribute. Need to refine so that people can deliver tangibles – demonstrate knowledge and skills gained.

Course evaluation (Flipchart)

- Intuitive process compares well with theory
- How to feed back info 7 suggestions from the course into the organisation
 - Capturing operational suggestions, etc.
- Case studies from water sector
- Course helps to develop meta-policy –
 - Internal procedures for policy development
 - More rigorous policy management in government
- Use learning groups to develop product for application in the organisation
 - Specific assignments
- Senior management included as well as younger people
- Differentiate between policy & operational staff as target audiences
- More target courses to develop specific aspects, e.g. M+E, implementation
- Reading material distributed prior to course
- Follow up on development of issues, strategies, etc. after the course
 - Unpack issues in more detail
- Case programme for DWAF
 - Storytelling
 - Analysis
- Emphasis on water resources
 - Services sector marginalised
- Registration and accreditation of course
- Greater relevance to line functions
- More structure to learning groups
- Career paths in public sector management
- Balance between generic case studies and water case studies
- Case study to follow one e.g. through all phases of the cycle
- Checklist for process; clarify difference between policy and strategy
- Practical exercise to anchor learning (assignment)
- Involve regional offices and implementers

Outcome of learning groups: key considerations on how strategy can be implemented

GROUP 1

-
- Process – prioritise, interpretation of policy, setting of clear objective, monitoring and evaluation system
- Consultation – integration between water resource and water services – interaction with civil society, local government, co-operative governance.
- Institutional and management – should be linked with capacity building. Programme for establishment of WMI
- Water specific – integrated water resource management
- Resources - Financial
 - Human Resources
 - Allocation of responsibility, e.g. recruitment and selection
 - Capacity Building

GROUP 2

- Water specific
 - Poverty eradication
 - Gender mainstreaming
 - Capture in performance management system
- Process:
 - Dependencies and priorities ("bite-sized chunks")
 - Impact of implementation - not assumed impacts
 - - ongoing analysis
 - - measured outcomes
 - Representative democracy ("us – them" syndrome)
 - Communication of relevant information with relevant role players – meaningful engagement
- Institutional ("Empowerment"):
 - Systems analysis (what exists, limitations, future needs)
 - Capacity (what exists.....needs)
 - Partnerships with other sector role-players
 - Continued institutional support (cross cutting)
 - Teamwork approach in DWAF

GROUP 3

- Clear leadership in guidance and communication with regard to priorities in NWRS
- Realignment of functions in terms of these priorities right through to business planning level (ownership (roles & responsibilities, interdepartmental link); resources (keeping experienced staff))
- Internal and external integration and coordination in implementation iterative and interactive) – in terms of line functions and in terms of cooperative support.
- Meta- protocol (institutional & process)
- Pilot testing to include all role players
- Dedicated communication strategy – entire cycle (Information management – stakeholder database)
- Monitoring and Evaluation – up and running as soon as possible – high level auditing (reporting function)
- Information management (demand driven)

GROUP 4

- Comments received on NWRS forwarded to relevant functional units for consideration and incorporation into designing implementation strategies.
- Develop and apply a "common approach" with relevant methodologies
- Timing of the involvement of key role players in policy/strategy development process is critical, as retroactive action takes more effort
 - facilitate ownership (roles and responsibilities)
 - integration (RDM / others)
 - position statement: RDM and water allocation
- Strategy has to be appropriately resourced in order to ensure implementation
- In piloting strategies, attempts should be made to consolidate parallel activities / initiatives in order to maximise use of resources and create critical mass.
- Development of strategy is not dependant on scientific input alone; other considerations such as political, social and economic inputs are critical.
- Restructuring initiatives with DWAF provides opportunities to facilitate IWRM (& strategies) implementation.

2.1 Professional seminar programme

SEMINAR ON POLICY DEVELOPMENT AND IMPLEMENTATION IN THE WATER SECTOR: REFLECTION AND LEARNING

10 -12 February 2004

Jointly developed by:

CSIR Environmentek

Water Research Commission

**Department of Water Affairs
and Forestry**

BACKGROUND INFORMATION

The South African water policy is considered to be very progressive and one of the best examples internationally for sustainable management of resources. The legislation which supports the policy is relatively sophisticated, yet it must be implemented in a developing country context. The long term success of the national water policy will depend on strong, sustained and consistent leadership from people who can guide the implementation process through the difficult first stages. In exploring the experiences of different individuals during the development of national water policy and in the early phase of implementation, it is clear that the majority of these people have and are finding their way by trial and error and that they perceive the implementation challenge as daunting. At the same time there is still very limited understanding of the interrelationships between policy development and implementation, with the added shaping forces of politics, economics and social factors. Few of those involved in developing and implementing water policy have been formally trained or equipped with the skills to manage high-level policy processes and programmes.

This three-day professional seminar was initiated in May 2003 to help consolidate and diffuse available knowledge on how to make the development and implementation of national water policy as effective and efficient as possible. The seminar has been designed to facilitate learning through personal reflection and knowledge sharing. The overall aim is to capture some of the insights and knowledge that has been accumulated over the past decade and to diffuse this knowledge for the benefit of current as well as future leaders in environmental policy domains.

This initiative is related to a current Water Research Commission project (K5/1295). For more information on the project please contact the responsible research manager Dr Heather MacKay heatherm@wrc.org.za, or the project leader Dr Dirk Roux droux@csir.co.za

OBJECTIVES OF SEMINAR

By the end of the seminar, participants will:

- Understand basic public policy concepts and frameworks
- Be able to apply a generic policy process framework to water policy development and implementation
- Be able to develop implementation strategies for policies and programmes in the water sector
- Understand the generation of policy options to meet the needs of a changing society

SEMINAR CONTENT

The following main themes will be addressed during the seminar:

- Frameworks for public sector policy development, implementation and evaluation
- Application of generic frameworks to water policy
- Effective implementation of policies and programmes: planning; monitoring and evaluation; institutional capabilities; logistics
- Options for continuous revision and improvement

Tuesday 10 FEBRUARY 2004 Policy Management		
10h00	Registration	
10h30	Welcome and course introduction	Dr Heather MacKay
	Expectations and anticipated outcomes	Prof Christo de Coning
11h30	Presentation and group discussion: Overview of Theoretical perspectives in policy management	Prof Christo de Coning
13h00	LUNCH	
14h00	Case Study of the water policy process in South Africa	Prof Christo de Coning
15h15	TEA	
15h30	Group and panel discussion: Policy management in the Water Sector	
16h30	Presentation: Challenges of developing policy in a multiple country context	Mr Anthony Turton
17h00	Sundowners	

Wednesday 11 FEBRUARY 2004 Strategy and Implementation		
08h30	Group Reflection	Prof Christo de Coning
09h00	Presentation and group discussion: Strategy and Implementation in the SA Public sector	Mr Jeets Hargovan
10h30	TEA	
11h00	Presentation: National Water Resources Strategy	Mr Bill Rowleston
12h00	Group Work Options for implementation	
13h00	LUNCH	
14h00	Group Work	
15h00	TEA	
15h15	Group presentation & Panel	
16h30	Presentation: Knowledge Management in Policy Processes: Update from Washington-	Dr Dirk Roux

Thursday, 12 FEBRUARY 2004 Institutional arrangements for strategy implementation		
08h30	Group Reflection	Prof Christo de Coning
09h00	Presentation and group discussion: Institutional options for the improvement of implementation	Mr Jan Koster
10h30	TEA	
11h00	Case Study of the development of the Olifants-Doom CMA in the Western Cape	Mr Willie Enright & Panel
13h00	LUNCH	
14h00	Presentation: Implementation Challenge – a case study of capacity development for policy implementation	Mr Huub Schrijver
14h30	Group evaluation & Closure	
15h30	Departure	

2.2 Participants

SEMINAR ON POLICY DEVELOPMENT AND IMPLEMENTATION IN THE WATER SECTOR: REFLECTION AND LEARNING 10-12 FEBRUARY 2004					
NAME	SURNAME	TITLE	AFFILIATION	ADDRESS	TEL/FAX/E-MAIL
Nigel	Rossouw	Mr	CSIR	P O Box 320 STELLENBOSCH 7600	Tel: (021) 888 2492 Cell: 082 924 4264 Fax: (021) 888 2693 E-mail: nrossouw@csir.co.za
Witek	Jezewski	Mr	DWAF Water Services	Private Bag X313 PRETORIA 0001	Tel: (012) 336 8160 Cell: 082 412 4737 Fax: E-mail: nax@dwaf.gov.za
Enos	Nenzhelele	Mr	DWAF Water Services	Private Bag X313 PRETORIA 0001	Tel: (012) 336 8284 Cell: 082 809 5102 Fax: (012) 336 6650 E-mail: nenzheleleE@dwaf.gov.za
Hugh	Sussens	Mr	DWAF Water Services	Private Bag X313 PRETORIA 0001	Tel: (012) 336 6504 Cell: 082 808 5638 Fax: (012) 336 6679 E-mail: sussensh@dwaf.gov.za
Abri	Vermeulen	Mr	DWAF Water Services	Private Bag X313 PRETORIA 0001	Tel: (012) 336 6555 Cell: 082 808 5631 Fax: (012) 336 6560 E-mail: vermeulena@dwaf.gov.za
Tobias	van Reenen	Prof	University of Western Cape	Private Bag X17 Belville 7535	Tel: (021) 959 3442 Cell: 082 455 2613 Fax: (021) 959 2960 E-mail: tvanreenen@uwc.ac.za
Mtshakala	Phaloane	Ms	Bungane Development Consultants	P O Box 3439 BENONI 1500	Tel: (011) 845 3869 Cell: 072 395 9310 Fax: (011) 845 3307 E-mail: p.radebe@absamail.co.za
Marian	Neal	Ms	CSIR	P O Box 17001 CONGELLA 4001	Tel: (031) 242 2330 Cell: Fax: (031) 261 2589 E-mail: mneal@csir.co.za
Nicky	Naidoo	Ms	Nemai Consulting	P O Box 1673 Sunninghill 2157	Tel: (011) 482 1730 Cell: 082 330 9510 Fax: (011) 482 1731 E-mail: nemai@iafrica.com
Simon	Moganetsi	Mr	DWAF	Private Bag X313 PRETORIA 0001	Tel: (012) 336 7486 Cell: 082 803 0414 Fax: (012) 336 6678 E-mail: deji@dwaf.gov.za
Nevil	Quinn	Dr	University of KwaZulu-Natal	Private Bag x01 SCOTTSVILLE 3209	Tel: (033) 260 5664 Cell: 083 333 0745 Fax: (033) 260 6118 E-mail: quinnnw@nu.ac.za
Alan	Brown	Mr	DWAF	Private Bag X313 PRETORIA 0001	Tel: (012) 336 8321 Cell: 082 327 0042 Fax: (012) 336 7399 E-mail: icb@dwaf.gov.za
Hanlie	Hattingh	Mrs	CSIR Environmentek	P O Box 395 PRETORIA 0001	Tel: (012) 841 2757 Cell: 083 701 3022 Fax: (012) 842 7731 E-mail: hhattingh@csir.co.za

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NAME	SURNAME	TITLE	AFFILIATION	ADDRESS	TEL/FAX/E-MAIL
Gugu	Mazibuko	Mr	Pegasus	183 Bronkhorst Street BROOKLYN	Tel: Cell: 083 268 5409 Fax: E-mail: gugu@pegasys.co.za
Guy	Pegram	Dr	Pegasus	110 Herbert Baker GROENKLOOF PRETORIA 0181	Tel: Cell: 083 325 0819 Fax: (012) 346 5394 E-mail: guy@pegasys.co.za
Israel	Raphalaleni	Mr	DWAF Water Services	DWAF Private Bag x313 PRETORIA 0001	Tel: (012) 336 6631 Cell: 082 808 0416 Fax: (012) 336 6673 E-mail: vgd@dwaf.gov.za
Joyce	Lapisi	Ms	DWAF WBO	DWAF Private Bag x313 PRETORIA 0001	Tel: (012) 336 8636 Cell: 082 806 7398 Fax: (012) 336 6673 E-mail: lapisi@dwaf.gov.za
Carin	Bosman	Ms	University of Potchefstroom, Northwest Campus		Tel: () Cell: Fax: () E-mail: @
Sebetso	M	Mr	DWAF		Tel: (021) 405 2200 Cell: 083 476 3859 Fax: (021) 425 7881/2 E-mail: sebetso@dwaf.gov.za
Ernita	Van Wyk	Ms	CSIR	P O Box 395 PRETORIA 0001	Tel: (012) 841 3672 Cell: 083 415 1482 Fax: (012) 841 2506 E-mail: ewyk@csir.co.za
Nikite	Muller	Dr	IWR Rhodes University	P O Box 94 GRAHAMSTOWN 6140	Tel: (046) 603 8532 Cell: Fax: (046) 622 9427 E-mail: nikite@iwr.ru.ac.za
Jurgo	Van Wyk	Mr	DWAF Planning	Private Bag X313 PRETORIA 0001	Tel: (012) 336 8407 Cell: 082 806 5420 Fax: (012) 323 0321 E-mail: jurgo@dwaf.gov.za
Kevin	Murray	Dr	Insight Modelling	P O Box 38953 GARSFONTEIN EAST 0060	Tel: (012) 998 4059 Cell: Fax: (012) 998 4059 E-mail: kmurray@msweb.co.za
Nhlanhla	Mbatha	Mr	IWR Rhodes University	P O Box 94 GRAHAMSTOWN 6140	Tel: Cell: 083 670 4287 Fax: E-mail: nhlanhla@iwr.ru.ac.za
Rongqiv	Cai	Ms	DWAF WRPS	Private Bag X313 PRETORIA 0001	Tel: (012) 336 8480 Cell: 082 808 2815 Fax: (012) 336 8947 E-mail: dcg@dwaf.gov.za
Jay	O'Keeffe	Prof	IWR Rhodes University	P O Box 94 GRAHAMSTOWN 6140	Tel: (046) 622 8502 Cell: 082 801 1390 Fax: (046) 622 9427 E-mail: jay@iwr.ru.ac.za
Vusi	Skosana	Mr	DWAF	Private Bag X313 PRETORIA 0001	Tel: (012) 336 7511 Cell: 082 908 4812 Fax: (012) 336 8678 E-mail: des@dwaf.gov.za
Tandi	Zokufa	Ms	DWAF RQS	Private Bag X313 PRETORIA 0001	Tel: (012) 808 0374 Cell: 082 908 2894 Fax: (012) 808 0338 E-mail: zokufat@dwaf.gov.za

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NAME	SURNAME	TITLE	AFFILIATION	ADDRESS	TEL/FAX/E-MAIL
Sugandree	Muruvan	Mrs	DWAF	Private Bag X313 PRETORIA 0001	Tel:

2.3 Presenters and guest speakers

NAME	AFFILIATION	CURRENT POLICY RELATED ROLE
Prof Christo de Coning	Wits School of Public and Development Management	Prof De Coning established the Mpumalanga Management Centre which he currently manages. He has extensive experience in amongst others Public and Development Management, Policy management, Policy process facilitation and Institutional arrangements for policy management. He was recently involved with the design and management of the Maputo Corridor Capacity Building Programme
Dr Heather MacKay	Water Research Commission	Dr MacKay, a research manager at the WRC, was closely involved in the development of the national water policy of 1997, particularly those aspects relating to resource protection, and in the drafting of the National Water Act of 1998. She was responsible for the development and implementation of the regulatory provisions for protection of aquatic ecosystems. She continues to provide policy development and implementation support to government agencies in South Africa and other African countries.
Mr Anthony Turton	Gibb-Sera chair in integrated water resource management	Anthony Turton occupies the Gibb-SERA Chair in IWRM at the CSIR and University of Pretoria. A political scientist by training with a professional background in strategic planning and political risk assessment, Anthony is currently involved with a range of policy work in the water sector. This includes the policy dimensions of the National Water Act, the drafting of regional policy for SADC, and the generation of policy options in the Okavango River Basin. A key professional interest of his relates to the role of policy as an mitigator of conflict. Anthony is a founding member of the Universities Partnership for Transboundary Waters, where "transboundary" is defined as that moment in time when water crosses a political jurisdiction.
Mr J Hargovan	Strategic Alternatives Management Consultants	Mr Hargovan has been very involved in public sector management for the last three years. He has applied MTEF business planning and formulated strategy for various departments.

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Mr Bill Rowiston	DWAF, Policy and Strategy Coordination	Mr Rowiston is the Director: Policy and Strategy Coordination and is primarily responsible for co-ordination the development of coherent WRM policy and strategy in accordance with the DWAF's Strategic Plan and MTEF, as well as WRM strategic foresight in terms of sector capacity requirements. Mr Rowiston is currently overseeing the National Water Resources Management Strategy development process.
Dr Dirk Roux	CSIR, Environmentek	Dr Roux is the project leader of a current WRC project of which this initiative is related to. Dr Roux is furthermore the project leader for a current DWAF project on the development of operational policies and management instruments for resource-directed water quality management.
Mr Jan Koster	DBSA	Mr Koster is a Principle Institutional Specialist, DBSA, and has vast experience in institutional matters at all levels. He has furthermore worked with various government departments and southern African states.
Mr Willie Enright	DWAF, Western Cape	Mr Enright is a Deputy Regional Director in the Western Cape. He is managing the implementation of the National Water Act in the 4 Water Management Areas of the Western Cape and specifically the development and support of water management institutions.
Mr Huub Schrijver	Schrijver Consensus Strategic Management BV	Mr Schrijver has specialist expertise in public participation and negotiation processes, consensus building processes and in the design and management of capacity building programmes.

2.4 Seminar evaluation and comments sheet

SEMINAR EVALUATION & COMMENTS**SEMINAR ON POLICY DEVELOPMENT AND IMPLEMENTATION IN THE WATER SECTOR:
REFLECTION AND LEARNING****CSIR INTERNATIONAL CONVENTION CENTRE, PRETORIA
10 TO 12 FEBRUARY 2004**

The rating scale is 1 to 5, where 1 is very bad and 5 is excellent

CRITERIA	Rating				
	1	2	3	4	5
COURSE EFFECTIVENESS					
Your understanding of basic public policy concepts and frameworks					
Your ability to apply a generic policy process framework to water policy development and implementation					
Your ability to develop implementation strategies for policies and programmes in the water sector					
Your understanding of the generation of policy options to meet the needs of a changing society					
Would you recommend the seminar?	Yes / No				
Other					
COURSE PROGRAMME AND PRESENTATION					
Facilitation					
Group participation					
Time allowed for each session					
Time allowed for discussion					
Balance between theory and practical examples					
Interaction between participants and speakers					
Overall quality of presentations					
Should more time be allocated for this seminar	Yes / No				
Other					
THE COURSE AND THE VENUE					
Course advertisement					
Pre-course information					
Conference facilities					
Food					
Other					

2.5 Seminar evaluation and feedback

SEMINAR EVALUATION & COMMENTS**Seminar on Policy Development and Implementation in the Water Sector: Reflection and Learning****CSIR International Convention Centre, PRETORIA – 10 to 12 February 2004**

Persons that confirmed : 33 (18 DWAF, 15 Other)

Persons attended: 28 (14 DWAF, 15 Other)

Feedback: 22

The rating scale is 1 to 5, where 1 is very bad and 5 is excellent

CRITERIA	Rating				
	1	2	3	4	5
	Very Bad – Bad		Good - Excellent		
COURSE EFFECTIVENESS					
Your understanding of basic public policy concepts and frameworks	0	2	6	14	0
Your ability to apply a generic policy process framework to water policy development and implementation	0	6	4	9	3
Your ability to develop implementation strategies for policies and programmes in the water sector		5	9	7	1
Your understanding of the generation of policy options to meet the needs of a changing society	0	4	8	10	0
TOTAL	0	17	27	40	4
%	0	19.31	30.68	45.45	5.54
	19%		81%		
Would you recommend the course?	Yes (20) No (0)				
Comments / Recommendations					
- Higher ranking officials in DWAF should attend the seminar – those that have been involved in the policy development process - Other government departments should also be invited to the seminar - Water Services policy development and implementation must be addressed more specifically in the seminar - Something more on the analysis of policy and their consequences - Enhanced understanding rather than ability to go out and do things. - Try and target senior managers for future seminars					
COURSE PROGRAMME AND PRESENTATION					
Facilitation			2	11	9
Group participation		2	2	14	4
Time allowed for each session			3	11	8
Time allowed for discussion			4	10	8
Balance between theory and practical examples		2	11	6	3
Interaction between participants and speakers		1	4	12	5

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Overall quality of presentations		1	2	11	8
TOTAL	0	3.9	18.2	48.8	29.1
%					
	4%		96%		
Should more time be allocated for this course (-2)	Yes (3) / No (17)				
Other					
• Would be happy to participate in the next seminar • Would prefer if the seminar was two, instead of three days – three days out of the office is problematic. • Future seminars should focus more on water services – current seminar is biased to water resources • More case studies that are locally based • Try to engage the group more in the group participation • The seminar could be slightly shorter or more "compact" • The examples used related more to water resource management – include water services examples in future.					
THE COURSE AND THE VENUE					
Course advertisement (-2)	0	5	5	6	4
Pre-course information	2	3	8	4	5
Conference facilities	0	0	0	9	13
Food	0	0	1	10	11
TOTAL	2.3	9.3	16.3	33.7	38.4
%					
	12%		88%		
Other					
• Try to arrange again for beginning to mid February next year - the year gets too busy too quickly. • This seminar should be presented at least twice a year • A follow up or monitoring phase of the seminar effectiveness should be done so as to transfer acquired knowledge into practice • Very interesting seminar – enjoyed it very much • Very good seminar • In general a good seminar – thank you to the organisers • Continuation of this seminar at a later stage – it is really important and informative					

Comments: Closure

- DWAF's regulatory role
- Aspects to be considered / addressed in future seminars:
- Governance tools;
- Decision-making processes, e.g. case studies as examples
- Constitutional and administrative law
- Regional capacitation (co-operation within regions) – DWAF to provide input in this regard
- How research relates to the whole policy process
- Other government departments should attend the next seminar
- Need more regulators to attend

General remarks

- This was a good capacitating exercise

- An "intellectual treat"!
- Very valuable exercise – have a better feeling for the jargon that is used.
- Even 'though the talks were very interesting, 3 days is a long time to sit and listen, and it would be worthwhile considering breaking up the plenary talks with small group sessions. These might be a bit artificial, since the seminar is not aimed at any specific outcomes except understanding of the issues, but could provide opportunities for those delegates who are shy in large groups to make contributions. It would also be interesting to hear and understand the individual delegates' experiences on some of the themes of the seminar. For example, groups of 5 or 6 could be given an hour or so to consider particular issues in the light of their personal experiences. eg:
 - Transformation
 - Integrating (clustering) objectives and processes between different agencies.
 - Implementation
 - Relationship between policy and legislation
 - Building capacity
 - Language and jargon – effective communication
 - Different perceptions and priorities
 - Sharing information and developing knowledge
 - Batho pele (people first)
- Many of the talks concentrated on the problems and impediments of developing realistic policies and implementing them. I got the impression that, in SA, we have got a bit carried away with policy development, and are now stuck with very complex strategies that we are struggling to implement. Maybe we needed more emphasis on accepting that we are in this position, and finding ways to move ahead as best we can.
- Thanks for the very extensive documentation, which provides us with excellent material for the future.

The venue and facilities are excellent. Maybe the CSIR should give some thought as to whether the provision of large numbers of individual disposable plastic bottles and sweets individually wrapped in cellophane presents the right sort of message about waste.

2.6 Post Seminar Survey

All the participants that attended the course and seminar during May 2003 and February 2004 respectively were e-mailed a questionnaire to establish whether the course/seminar has affected the way in which they perform their day-to-day tasks or think about their tasks.

Nine responses (15%) were received back - four from participants from the May course and 5 from the February seminar participants. The respondents included six government officials and the remaining three came from an academic background, a consultancy service and a science council respectively. Their responses have been collated and are summarised below.

The rating scale is 1 to 5, where 1 is very bad and 5 is excellent

CRITERIA	Rating				
	1	2	3	4	5
	Very Bad – Bad		Good - Excellent		
Changes in perceived seminar effectiveness once people have had time to get back into their offices and carry on with their daily work.					
Your understanding of basic policy concepts	0	1	4	4	0
Your ability to apply a generic policy process framework to water policy development and implementation	0	1	5	3	0
Your ability to develop implementation strategies for policies and programmes in the water sector	0	2	5	2	0
Your understanding of the generation of policy options to meet the needs of a changing society	0	3	2	4	0
TOTAL	0	7	16	13	0
	0%	19.5%	44.4%	36.1%	0%
	%19.5		%80.5		

Criteria	Yes	No	Yes and No*
Would you recommend the seminar?	8 (89%)	1 (11%)	-
As a result of attending the seminar, have you changed the way in which you plan, execute or evaluate the policy initiatives for which you are responsible for?	4 (44%)	5 (56%)	-
Since attending the seminar, have you actively sought more information or professional training, or read more literature specifically from the field of public management and public policy?	7 (78%)	2 (22%)	-
If Yes, would you say that this has been a direct result of your attendance of the seminar?	3 (38%)	0	5 (62%)

*Yes due to the course; No, because demand and need in working environment also a driver

What do you NOW feel was the most valuable insight or item of knowledge (if any) which you gained from attending the course/seminar?

- The policy development and implementation "life cycle" approach.
- That operationalisation / implementation of the policy is just as important as developing the policy itself.
- The importance of pre- and post- assessment of policy (and establishing review tools)
- Communication (and information management and reporting) – during and continuously after.
- One of the case studies presented by Christo de Coning – we have applied the criteria referred to in the case study for a policy currently being developed.
- The complexity of policy generation and implementation processes and the susceptibility of these processes to manipulation and distortive domination by powerful interest groups. Huge lack of ability, capacity and expertise to implement policy.
- That we have been following the policy process as it is documented, without realising it.
- That the way we do things will determine how it will work in future, so if we manage to set up a good framework, it will help many and achieve government's goal.

- That policy development is an iterative and interactive approach that is ongoing. That it is not merely an once off document or report, but it is a dynamic and living process. The policy that one develops is a statement of ones intentions and beliefs. I am very positive about the fact that the Deming model (Plan-do-check-act) approach can be used in the development of a policy, thus closing the business life cycle and create opportunity for continual improvement.
- The phases of the generic approach of policy-making and understanding the complexities and key considerations.
- Insights into the process of development of the NWA.
- The relationship between policy and policy-making in a trans-boundary context.
- A broader context of operational policy.
- The policy framework and how to go about developing policy as well as the extremely interesting case study (by a person from the CSIR on river systems in Africa and the political and other boundaries).

Other comments / issues

- As mentioned at the seminar, I would like the course to be run for my staff in WfW – can this be done as there are very valuable lessons here and it is much needed in out business.
- Consideration should be given to put in place formal regulatory impact assessment (RIA) tools for Water Resources Management (WRM) policies.
- Setting out principles for effective and sound regulatory instruments (including policies) to assist Management in approving WRM policies.
- The importance for DWAF in particular to develop a meta policy to ensure uniformity, and to provide guidance as to what should be addressed in a policy. This would with the rate at which policies are approved by the functional committee since it could provide a checklist that can be used to check whether the proposed policy complies with DWAF requirements. A meta policy can also create the opportunity to establish an evaluation committee that will identify policy requirements from within DWAF and from external requirements. This will assist with planning, avoid duplication, prioritising and enhance or promote co-operative governance where there is a shared responsibility, e.g. wetland management, policy. Meta policy could also serve as an early warning system to ensure that policies that have not been identified to be a priority do not get lost / forgotten.
- The course could be made into a self learning text book / course material guide (pocket book).
- Great stuff!! – please consider running the course again for specific groups "tailor made".
- An excellent seminar, especially for new staff in the field.

APPENDIX C

Full text versions of the six issues papers (on CD attached to back cover)

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Fax Number: 012 331 2565
E-mail: publications@wrc.org.za



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Water Research Commission
Private Bag X03, Gezina, 0031, South Africa
Tel: +27 12 330 0340, Fax: +27 12 331 2565
Web: <http://www.wrc.org.za>