

Towards Water Resources Regulation in South Africa Volume III:

THE USE OF REGULATORY IMPACT ASSESSMENT in Developing Approaches and Tools for Pro-Poor Water Resources Regulation

Vandudzai Mbanda, Barbara Schreiner & Shingirai Chimuti



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Towards Water Resources Regulation in South Africa

Volume 3: The use of Regulatory Impact Assessment in developing approaches and tools for pro-poor water resources regulation

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Water Research Commission

by

Vandudzai Mbanda, Barbara Schreiner & Shingirai Chimuti
Pegasys Strategy and Development

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Towards Water Resources Regulation in South Africa: Synthesis Report (WRC Report No. TT 497/11).

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Executive Summary

This report is the third and last report in the research project, Towards Water Resources Regulation in South Africa, the first being the Survey of Approaches to Water Resources Regulation, and the second being Water Resources Regulation Arrangements in South Africa: Institutional Criteria, Functions and Arrangements. It deals with the issue of regulatory impact assessment as a tool in understanding and managing the impacts of water resources regulation.

South Africa is currently in transition from a historical focus on the development of water resources infrastructure to a stronger focus on water resources regulation. At the same time, the South African government has been investigating the use of Regulatory Impact Assessment, a process lead by the Presidency and National Treasury. According to Neva Makgetla, DDG: Policy of the Department of Economic Development, the intention is to ensure that a range of alternatives, including the 'do nothing' option, have been considered, that the impact on employment, investment and growth have been considered, and that consultation has been done with key stakeholders (pers comm. 2010).

In the light of these developments, this report sets out to consider the international experience of RIA, its application to water resources regulation, and some lessons for the implementation of pro-poor RIA in water resources regulation in South Africa.

The report begins with an explanation of the evolution of RIA, the purpose of RIA and some discussion on the methodology of conducting such assessments. This is followed by an assessment of international RIA experience. Section 5 looks at a possible RIA approach for the water resources sector in South Africa. This is followed by the concluding section.

What is Regulatory Impact Assessment?

RIA is a tool for assessing the impacts of regulation, which is used to examine and measure the possible benefits, costs and effects of new or changed regulation (OECD, 2008a: 7; OECD (Undated): 16), in order to provide decision-makers with empirical data and a comprehensive framework in which they can assess their options and the consequences their decisions may have (Rodrigo, 2005: 5).

Ideally RIA is based on determining the underlying regulatory objectives and identifying all the feasible policy options capable of achieving them. The alternative policy options are assessed using the same method so that policy-makers can systematically choose the most efficient and effective options using information on the efficiency and effectiveness of the different options (OECD, 2008c: 3).

In some countries cost-benefit analysis is the main approach used to carry out RIA although there are other methodologies including cost-effectiveness analysis, compliance cost assessment, cost-benefit analysis and risk-risk analysis (Renda, 2006: 38).

According to the OECD (2008b: 4), the use of RIA as a formal regulatory quality instrument goes back more than 25 years. It was first introduced in the US in 1974, and since then most developed countries have been applying RIA to some extent to new and existing policies (Analytica, 2010: 1; OECD, 2009: 3). However, the introduction of RIA into countries in transition and developing countries has often been driven by external factors such as donor-driven programmes, or the desire to accede to the EU.

RIA as it was originally conceived, was a tool to identify the costs of regulation to the business sector, to support a process of deregulation to reduce the burden of regulation on the private sector, thus improving competitiveness (Kirkpatrick and Parker, 2006: 1). Since then, however, the definition and purpose of RIA have been widened, and the public objectives have been widened to include consideration of the social, economic and environmental impacts of regulation. This follows a shift of focus from 'less' regulation to 'better' regulation. (Kirkpatrick and Parker, 2006: 1).

Nonetheless, RIA is not without its critics in terms of its effectiveness and its ability to deliver value for money. In many developing countries RIA is still perceived as a costly instrument that might not produce the expected outcomes in the short term (OECD, 2008a: 26). Developing countries have particular challenges in relation to understanding the impacts of proposed or existing regulation, challenges posed by their specific social, environmental and economic challenges and by challenges of access to good quality data. Developing countries also face a challenge in ensuring that RIA procedures are appropriate to their human and financial capacity constraints.

Purpose

According to the OECD, the aim of RIA is to ensure that legislation or regulations are implemented only if they are efficient and effective (OECD, 2009: 3). There are four challenges that RIA can help to address:

- Over-regulation
- Inappropriate regulation
- Lack of regulation and
- Unenforceable regulation.

Part of the process of RIA is to look at other non-regulatory alternatives for achieving the same objectives, such as public information dissemination, providing information to consumers, information provision by suppliers, imposing a tax on certain activities, applying subsidies to certain activities, and promoting self-regulation.

Challenges in using RIA

Radaelli (2004) highlights a number of challenges and concerns regarding the use of RIA. The first concern is that RIA, incorrectly applied, may bias the results towards the interests of one particular constituency, such as the business community. A second issue, and one that pertains particularly strongly in a highly unequal society such as South Africa, is the difficulty of addressing the distributional impacts of regulatory options through RIA. Further concerns include the difficulty in measuring such factors as the value of human life, or wilderness, and that RIA usually ignores threats

to other species, to biodiversity, and to other components of human welfare, such as mental health, spiritual well-being, and social stability' (Thiele, 2000: 554). Contrary to the desire purely for 'efficiency and effectiveness' highlighted by the OECD, developing countries may be more or equally concerned about transformational and distributional impacts.

A further challenge raised by Radaelli is that RIA requires 'time, institutional energy and human resources' (2004: 12). It is, therefore, not possible to cover every aspect of regulation, or every possible impact. Some countries use RIA extensively, but other countries have chosen, because of the resource intensiveness of the process, to use the tool far more selectively.

Methodology

There are a range of methods for applying RIA, ranging from the use of full cost-benefit analysis to simpler checklists, and from quantitative to qualitative approaches. The choice of methodology is particularly important in a country like South Africa which has limits to financial and human resources, but also has a strong need to understand the impacts of regulation on, inter alia, growth, poverty eradication and the optimal use of scarce natural resources such as water. The European Commission recognises the value of both quantitative and qualitative elements of RIA and highlights that the real function of RIA is to identify the major trade-offs of regulatory choices.

There are generally three steps in an RIA process:

- an analysis of the problem to be addressed, who is creating the problem, who is affected by the problem, the severity of the problem, and whether the problem requires government intervention;
- an evaluation of costs and benefits, including a consideration of the processes for the implementation of the regulatory action and an evaluation of a number of possible alternative regulatory and non-regulatory approaches which include a "do-nothing" approach.
- stakeholder consultation which is critical not only for purposes of transparency and accountability but also because stakeholders have a keen sense of the likely costs, benefits and impacts of proposed regulation.

International experience in using RIA

An assessment was conducted of RIA implementation in a number of countries, and lessons from these processes are highlighted in the report. The countries examined are: the UK, Ireland, Australia, the USA, Uganda, Tanzania, the Republic of Korea, and Mexico.

Arising from this experience, some general lessons can be drawn out:

It is important to introduce RIA gradually, increasing the complexity of the RIA model over time as administrations become more familiar with it, rather than adopting overly complex procedures in a restricted sample of selected proposals (Renda, 2006: 39).

There are different models for introducing RIA, some backed by legislation, some not. There is little indication that legislative backing improves the implementation of RIA where the political will exists to implement it. However, experience from Kenya and Tanzania shows that RIA as an external, donor-driven programme shows little momentum or sustainability. In Uganda the introduction of RIA enabled donors to engage in business environment reforms resulting in RIA that favoured business interests. Kirkpatrick, Parker and Zhang (2003: 13) argue, however, that if RIA is to contribute effectively to economic growth and poverty, it should not be manipulated by special interests. They further state that in some developing and transition countries “consultation has tended to be limited to government and the business sector, with consumer interests and other civil society interest groups being under-represented in the consultation process”, as in Uganda.

Mandatory public consultation enables increased participation by the general public in the early stages of the regulatory process but equally exposes regulators to risks of lobbying and capture (Renda, 2006: 22).

Despite decades of RIA implementation in the US, a review of implementation shows significant weaknesses, as follows:

- ❖ in 27% of the cases agencies had not considered alternative options
- ❖ only in 31% of the cases had agencies quantified both expected costs and benefits of proposed regulations
- ❖ only in 63% of the cases had the proponent agency calculated all identified costs
- ❖ only in 28% of proposals had the agency calculated the net present value of the regulatory intervention.

According to Lee (2007: 31), one of the key lessons from Korea is the value of creating “an independent body at highest level of the government, and let[ting] it control regulatory quality and check the “pro-regulation” tendency of line ministries”. However, without sufficient capacity, the creation of such an approach can result in significant delays in the implementation of necessary regulation.

The success of the Mexican RIA implementation, according to the OECD (1999: 50), is attributed to the requirement for an RIA to be signed by a deputy minister (or director general for lower-level actions), that they focus only on costly regulations, and the inclusion of a number of possible impacts and quality aspects to be assessed.

The table below provides a summary of the status of RIA implementation in selected countries.

Implementation of RIA in selected countries (Source Ladegaard (2005: 6))

Country	Status of RIA implementation	Formalization of RIA Requirements	Scope of coverage
Korea	Adopted 1998	Law	Primary laws and subordinate regulations. RIA is not required for the review of existing regulations.
Mexico	1996, expanded 2000	Law	Primary laws and subordinate regulations. RIA does not apply to the review of existing regulations.
Serbia	Adopted 2004, implemented 2005	Law	Primary laws and subordinate regulations. RIA does not apply to the review of existing regulations.
Macedonia	Adoption in process	Framework Law in initial drafting phase.	Primary laws and subordinate regulations. RIA will be applied to targeted existing regulations.
Uganda	Under preparation since 2000	n.a.	RIA may require policymakers to specify whether regulatory proposal will entail additional costs to small businesses, what any such costs are, and how much the typical small business in the sector is likely to have to pay. RIA may also look at distributional impact on tribes, religious groups, and the different regions of the country.
Poland	Adopted 2001	Resolution of Council of Ministers	All new primary laws and subordinate regulation. RIA not required in review of existing regulation. As a minimum RIA should cover impacts on i) public finance, ii) labour market, iii) competitiveness iv) regions.
EU	2003	Communication from the Commission	Major regulatory and/or non-regulatory proposals with significant economic, social and / or environmental impacts. Proposals with a significant impact on major interested parties. Proposals that constitute a new policy, policy reform and/or significant change to existing policy. Proposals that involve major regulatory issues (subsidiarity/proportionality/choice of regulatory instrument). The new procedure does not apply to Community decisions that derive from the executive powers of the European Commission, e.g. adoption of EU funded projects, decisions in application of EC competition law, etc.

UK	Adopted 1985, expanded 1996, 1998 and 2004	Government Policy	Any proposal for which regulation is an option – including both primary and secondary legislation – that would have a non-negligible impact on businesses, consumers, voluntary organizations and charities, social groups, and the public sector. RIA is also applied to existing regulation.
Denmark	Adopted 1966, expanded 1993, 1995 and 1998	Government Policy	All primary laws. RIA is not applied on secondary regulations. However, from 1st of January 2004 all secondary legislation on business has to be tested in a Business Test Panel. RIA is not applied to the review of existing regulations.
United States	Adopted 1977, expanded 1981	Presidential Order	Primary laws in selected cases and all subordinate Regulations.

Lessons for South Africa

Understanding the drivers

When it comes to RIA design or implementation there is no one-size-fits all method and the appropriate design is dependent on various existing institutional and administrative traditions in different countries (Ladegaard, 2005: 7). Ladegaard points out that the intention behind adopting RIA differs, which will lead to different approaches being adopted. According to Staroňová, Pavel and Krapež (2007: 272), RIA implementation sometimes faces problems because governments adopt RIA legislation to achieve legitimacy in international contexts rather than due to internal drivers. A further challenge raised by Radaelli (2004) is that the concept of best practice is sometimes used without sufficient contextualisation, so that models are adopted without sufficient recognition of the specific context that is necessary for them to be successful.

Methodological Challenges

Successful implementation of RIA, the OECD (2008a: 26) argues, is often constrained by lack of reliable data as well as appropriate indicators to carry out RIA and facilitate the measurement of the regulatory impact. Further, there is often insufficient use of evaluation techniques, and the techniques that are used, such as CBA, are not always used well (OECD, 2009: 27).

Because of data and/or analytical limitations, the majority of RIAs fail to quantify all major costs and benefits in monetary terms (OECD, 2009: 73). This challenge is particularly acute in developing countries where access to reliable data is limited. As a result of these problems, the feasibility and appropriateness of CBA as the standard methodology of RIA can be questioned. Qualitative and mixed approaches have been adopted in many countries as a result.

Finally, if not undertaken in the early stages of the decision-making process RIA can be seen as an obstacle to decision-making or legislative work in some administrations (Malyshev, 2008: 7).

Strong Political Support

One of the most significant impediments to an effective RIA system, according to OECD (2008a: 26), is indifference by the public administration, mainly because of inertia in the political environment. As Ladegaard (2005: 7) points out, the “implementation of RIA systems is time consuming, controversial, and needs strong political support throughout the process”. Without effective training of state officials and strong political support, RIA is unlikely to be implemented effectively.

Failure to Quantify Distributional Impacts and to Compare Alternatives

In Europe, impact assessments rarely compare alternatives and “seldom estimate costs, almost never quantify costs to businesses, do not specify benefits, and virtually never compare costs and benefits”. As a result of this, the business community in Europe is said to collect its own data and conduct its own studies to see the effects of new regulations

Echeverri-Carroll and Ayala (Undated: 23) argue that the US regulatory analysis programme’s priority has been on improving how to measure the efficiency of a regulation (costs and benefits of a new regulation to society), without giving priority to the distributional effects of regulations. Evaluating distributional effects has not been at the centre of cost-benefit analyses, and assessing the distributional effects of regulatory proposals is not an easy task. This, however, is a critical point for South Africa, where the issue of reducing, not increasing, the Gini co-efficient is paramount.

Pro-poor RIA

RIA is by no means a neutral or perfect tool and can be a misleading guide to policy making because it largely ignores the distributional impacts of policy (OECD, 2009: 31). To make RIA pro-poor an analysis of the positive and negative effects of regulation on prices, job opportunities, access to credit, public service delivery and the SME environment should be incorporated. The OECD suggests that this will enable an examination of how regulations assessed through RIA may contribute to assisting the poor and alleviating poverty.

Ladegaard (2005: 9) argues that because developing countries put greater emphasis on sustainability and poverty reduction goals, they cannot base RIA implementation on the OECD guidelines. RIAs can, however, be made pro-poor by placing an explicitly heavy weighting on poverty reduction and skewing the assessment in favour of regulatory changes that assist the poor (Ladegaard, 2005: 9; Kirkpatrick, Parker and Zhang, 2003: 14).

Institutional Issues

According to Jacobs (1997: 22) there are two challenges to the institutional arrangements for RIA: “delegating full responsibility to regulators without adequate oversight sacrifices RIA to the narrower incentives and mission of the regulators, while, ... placing responsibility for RIA in an independent body isolates the analysis from the decision-making process, and renders it an academic and impotent exercise”. Thus the institutional arrangements should allow for an institutional structure that charges regulators with primary responsibility for RIA, and places quality

control with an independent oversight body empowered to establish quality standards for analysis. Equally, the assumptions and results should be tested through public consultation.

However, if RIA is to be effective there is need for training at national and local levels, and clear political support to promote a change in administrative culture.

Failure to implement

One of the things that RIA does not appear to take into consideration is the impact of the failure to implement regulation once the regulatory requirements have been promulgated, either in legislation or as regulations. The implementation of the licensing requirements in South Africa is a case in point. The impacts of such and likelihood of such failure may result in an alternative approach being considered more appropriate.

Key elements of an RIA framework for water resources regulation in South Africa

This section provides some initial thinking on a framework for using RIA to improve water resources regulation in South Africa. It draws from the experience and frameworks developed by the OECD, the Irish, Canadian and Mexican governments, work done for the Department of Water Affairs under the Masibambane III programme, and the specific contextual needs of South Africa. In this regard, the approach has been tailored to take into account, in particular:

- The distributional impacts of regulation,
- The capacity constraints for the implementation of RIA and
- The capacity constraints for the implementation of regulation.

Define the problem

Define the problem and objectives and understand the policy context

The initial step is to understand clearly what problem is to be addressed and what the objectives of the proposed regulation are, as well as what the existing policy position is in relation to that particular issue. Without a clear policy position, regulation is likely to be contested and unlikely to be effective.

Identify alternatives

There are often other means, other than command and control regulation, which will equally achieve the required objectives, possibly with less costs to and demands on limited government resources and on those to be regulated. It is, therefore, important to examine whether regulation is the best option for addressing the problem, and if so, what kind of regulation.

At this stage, therefore, it is important to identify possible alternative mechanisms for achieving the intended objectives, such as voluntary agreements, education and awareness campaigns, and so on. Better enforcement of existing regulations might also be an option to consider.

The various alternatives, including the proposed regulation, should be clearly described at this point. The description of the proposed regulation should include the date on which the regulation will expire and timeframes for review of the impact and ongoing relevance of the regulation.

The description should also include reference to any replacement of existing legislation by the proposed regulation.

Clarify legal basis for action

It is important to clarify whether the legal mandate exists for the proposed action and what the extent of that legal mandate is. A regulation must be based on a section of an Act. The Act states “what” can be done and a regulation “how” it is to be implemented. Without having an empowering provision, a regulation cannot be made on that aspect and would be *ultra vires* (unlawful) and could be set aside. A regulation must be constitutional, based on a section of the Act, and within the powers of the Minister.

Identify affected parties

The various groups that will be affected by the proposed regulation should be identified. This will include those to be regulated, those who will benefit directly or indirectly from the regulation, and government players who may be affected by or involved in the regulatory activity. The nature of their relationship to the regulatory process should be identified. It is important to identify poor and marginalised groups in particular that might be affected by the regulation to ensure that the distributional impacts of the regulation can be properly assessed during the following phase. It may also be important to differentiate stakeholders by gender to identify whether there are gender specific costs and benefits, and whether, for example, poor women will bear undue costs.

Determine scale of impact of proposed regulation

Depending on the scale of impact, the nature of the RIA to be conducted will differ. The following table, adapted from the Mexican example, suggests some ways in which the level of impact can be categorised in the South African context and what the implications might be for the level of quantification¹.

Level of impact	Characteristics of costs	Level of quantification required
Low	Total annual costs to government do not exceed R10 million. Negligible impact on employment and business productivity.	No quantification required. Qualitative description of costs and benefits.
Medium	Annual costs between R10 and R50 million. Non-negligible impact on employment and productivity. Significant impacts on poor communities or SMMEs. Affects some economic sectors but effects are neither substantial nor generalised.	Quantification of costs and benefits suited to quantification. Qualitative description of the rest. Specific analysis of the impacts on poor communities and SMMEs.

¹ These categories have not been tested with decision makers and may need revision if to be applied.

High	Annual costs greater than R50 million. Generalised impact on multiple sectors of the economy, employment and business productivity. Substantial impact on a particular sector, industry or region.	Complete quantification of all costs and benefits.
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Assess Costs and Benefits

Describe/quantify costs and benefits to different groups

Clearly describe, either qualitatively or quantitatively depending on the results of the previous step, the costs and benefits **for each identified stakeholder group**, under the headings:

- Administrative
- Economic
- Social
- Environmental and
- Enforcement and compliance.

This should be done for **each of the various alternative approaches** identified so that they can be compared against each other.

Identify simplified procedures applicable to particular groups

At this stage it is also important to identify any simplified procedures for particular social or economic sectors in order to reduce the regulatory burden on them, such as small businesses. Due to the nature of the South African economy, it is also important to identify any contributions that the various options will make to the transformation challenges of the country. In the context of water resources regulation, the use of general authorizations is precisely one such approach.

Compare costs and benefits of alternatives

A comparison of the relative costs and benefits of the various alternatives should be conducted to assess the alternative that is likely to provide the best results with the lowest costs across the range of stakeholders. In order to ensure that the regulation is pro-poor, at this point extra attention or negative weighting should be given to costs to poor communities or groups so that the selected alternative is one that has low costs to or negative impacts on poor communities, both directly or indirectly. Equally, increased positive weighting should be given to benefits to poor communities.

List and compare trade-offs

One of the key elements of an RIA is to enable decision-makers to clearly understand the trade-offs involved in particular choices. Once the various costs and benefits to particular groups have been assessed, these should be analysed to give a clear picture to the decision-makers of the relative trade-offs of the various options assessed.

Consult

It is important to consult the stakeholders identified earlier, including those to be regulated, those that may be affected by the regulation, and relevant government stakeholders. For example, when looking at water resources regulation, it may be important to check what the Department of Environmental Affairs is doing, as well as SABS, Department of Trade and Industry, Department of Mining, Department of Agriculture, and National Treasury, over and above water users, interest groups and affected communities.

Consultation with key stakeholders from an early stage will allow informed identification of alternatives to regulation and informed assessment of costs and benefits. Care must be taken, however, not to let one group of stakeholders dominate and drive the RIA in a manner that serves the interests of one particular group. Consultation should take place in all three phases of the proposed RIA approach.

Conclusion

As mentioned previously, Radaelli stresses that the nature of the RIA approach will ‘take on a specific meaning and ‘speak’ to the minds of policy-makers and public opinion in a language that is framed by the changing priorities of economic policy in time and space.’ (Radaelli, 2004: 13-14). The National Water Policy and the National Water Act, within the context of broader government policy, set the current socio-economic policy priorities for water resources regulation. The Constitution sets the foundation for this with the recognition of the right “to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that

- i. prevent pollution and ecological degradation;
- ii. promote conservation; and
- iii. secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development “ (Constitution of South Africa, 1996: s24).

Thus, RIA, if it is to be applied in the South African water resources sector, it needs to take into account the Constitutional imperatives, as well as the imperatives of national social and economic policy. Poverty eradication and the creation of jobs are key elements of such policy. While RIA has a history of primarily serving the interests of business, in the South African context the nature of RIA would need to be shifted to include the transformation challenges of the country, in terms of race, gender and class transformation.

Equally, however, any application of RIA should be done with a clear understanding of its limitations and constraints. The application of RIA does not, of necessity, lead to better regulation. Carroll (2010: 121-22) argues that the answer to the question “*Does RIA lead to better policy?*”, is no . . . and yes. ‘No’, in that there are a number of insuperable obstacles, notably the limitations of the positivist approach that underlies RIAs, combined with the need for compromise in political systems, compromises that cannot be costed by techniques such as cost-benefit analysis. ‘Yes’, in that there

are elements of any decision-making process that can be improved, with existing RIA often highlighting a variety of weaknesses upon which remedial attention can be focused, if there is the political will to do so”.

Currently, however, there is a lack of capacity in government in general, and in the Department of Water Affairs in particular, to conduct full RIAs. For effective RIAs to be conducted on water resources regulation there will need to be an investment in capacity building and training for water sector officials to be able to manage and implement RIAs and to conduct both quantitative and qualitative assessments. Despite this, it is worth noting that some of the elements of RIA are already fairly widely in place in the development of regulations in South Africa, most particularly around the issue of public consultation, which is a well-developed ethos in the South African government, although implemented in very different ways and degrees by different departments (SBP 2005)

Radaelli notes, however, that what is most important in the implementation of RIA is that it is done in a context of ‘bounded rationality, learning by doing, administrative adaptation, and evolution.’ (Radaelli, 2004: 22). Within such an approach, and through developing an approach that is appropriate to the resource constraints and the specific challenges of the water resources sector, it is argued that the application of RIA could add significantly to the improvement of water resources regulation in South Africa.

Acronyms

RIA	Regulatory Impact Assessment
OMB	Office of Management in Business, USA
OIRA	Office of Information and Regulatory Affairs, in OMB, USA
CBA	Cost Benefit Analysis
UDE	Economic Deregulation Unit, Mexico

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1. Introduction

“It is preferable not to have RIA, than to have a bad one” Renda (2006: 135).

This report is the third and last report in the research project, Towards Water Resources Regulation in South Africa, the first being the Survey of Approaches to Water Resources Regulation), and the second being Water Resources Regulation Arrangements in South Africa: Institutional Criteria, Functions and Arrangements. It deals with the issue of regulatory impact assessment (RIA) as a tool in understanding and managing the impacts of water resources regulation in order to ensure better, transformational water resources regulation.

In the White Paper for a National Water Policy for South Africa (1997) and the related National Water Act (1998) South Africa adopted an integrated water resources management (IWRM) paradigm for the country, in line with the international discourse of the time and with what was being presented as international best practice. There are a number of elements that make up IWRM, one of which is water resources regulation.

As has been stated repeatedly, South Africa is a water scarce country, receiving around half the average global annual rainfall, with strong temporal and spatial variation in that rainfall. In addition to what Gray and Sadoff (2005) would describe as ‘difficult hydrology’, the major industrial development in the country took place around mineral deposits rather than water which was the focus of development in many other countries. These two elements drove the need for the development of major water resources infrastructure in the country for storage and interbasin transfer, to ensure a reliable supply of what for what Van Koppen (2007) terms the ‘white water economy’. In the process, South Africa built an extremely professional bureaucracy for developing, operating and maintaining this massive and inter-connected infrastructure system.

As has been discussed in the previous reports in this project, there is a pattern in the development of water resources management that aligns with the state of economic development of the country (see figure 1). As the economy develops, and as the infrastructure is increasingly developed to support that economic development, the focus shifts from infrastructure development to the regulation of water resources. South Africa is in this transition from a major focus on infrastructure development to a stronger focus on water resources regulation. This is not to suggest that the Department of Water Affairs has not been doing water resources regulation for many years, but rather to identify the shift in emphasis currently underway.

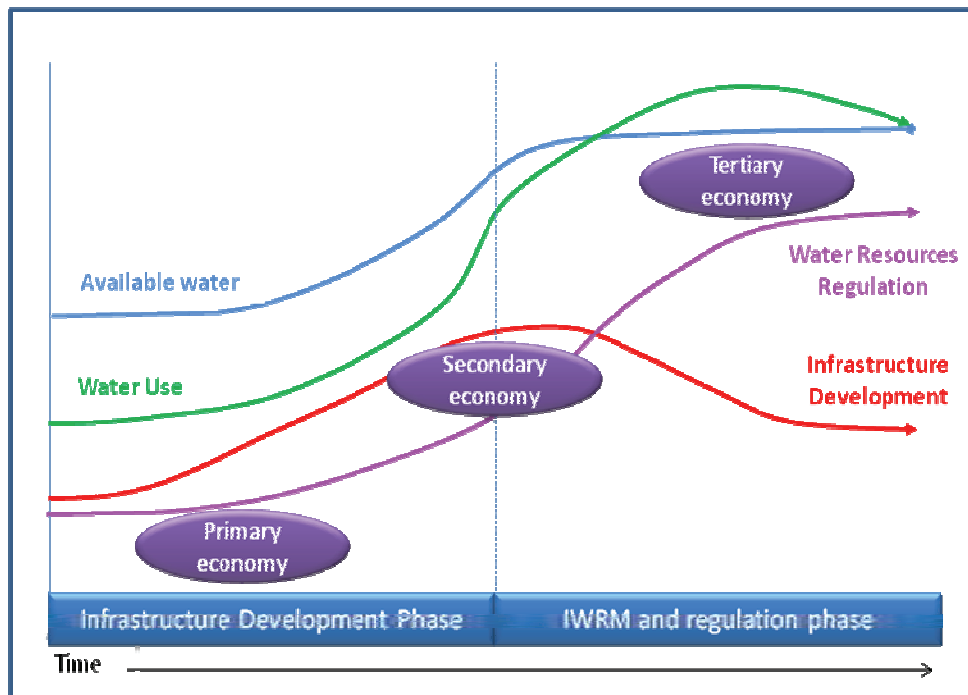


Figure 1: Evolution from Infrastructure to IWRM and Regulation (adapted from Pegram and Schreiner, 2010)

At the same time that this change has been happening in the water sector, the South African government has been investigating the use of Regulatory Impact Assessment, in a process lead by the Presidency and National Treasury and now with the involvement of the Department of Economic Development. The investigation had focused on the use of RIA primarily as a tool to inform Cabinet, when making decisions on regulatory approaches, that the unintended consequences of the proposed action have been considered. In summary, according the Neva Makgetla, DDG: Policy in the Department of Economic Development, the intention is to ensure that a range of alternatives, including the 'do nothing' option, have been considered, that the impact on employment, investment and growth have been considered, and that consultation has been done with key stakeholders (pers comm. 2010). The process of developing the RIA policy and methodology has, however, stalled, with some confusion apparent around whether the function now resides with the Department of Economic Development or the Presidency.

Despite the tardiness of the national RIA process, this report sets out to consider the international experience of RIA, and to draw out some lessons for the potential implementation of pro-poor RIA in water resource regulation in South Africa.

1.1. Structure of report

The report begins with an explanation of the history and evolution of RIA, the purpose of RIA and some discussion on the methodology of conducting such assessments. This is followed, in section 3, by an assessment of the international experience in using RIA, in both developed and developing countries and, in Section 4 some lessons from the international experience. Section 5 proposes a

high level framework for RIA in the water resources sector. This is followed by the concluding section.

2. What is Regulatory Impact Assessment?

RIA is a tool which is used to examine, measure, describe and sometimes to compare the possible benefits, costs and effects of new or changed regulation (OECD, 2008a: 7; OECD undated: 16). It is intended to provide decision-makers with valuable empirical data and a comprehensive framework within which they can assess their options and the consequences that their decisions might have (Rodrigo, 2005: 5).

Ideally RIA is based on determining the underlying regulatory objectives and identifying all the feasible policy options capable of achieving them. The alternative policy options are assessed using the same method so that policy-makers can systematically choose the most efficient and effective option using information on the efficiency and effectiveness² of the different options (OECD, 2008c: 3). According to Jacobs (2005a: 3), systematic RIA, in consultation with all affected groups, should help to determine possible effects and side-effects of proposed legislation. Table 1 gives one format of an RIA report as illustration.

Thus, generally, RIA is seen as a comparative process that uses a range of methods such as, but not limited to, cost-benefit analysis (CBA) to analyse, identify and assess the possible impacts of regulatory proposals (OECD, 2008c: 3; Radaelli, 2004). In some countries CBA is the main or formal approach used to carry out RIA while in other such as UK the most appropriate methodology is chosen depending on the type of regulation at stake. The tools used in UK include cost-effectiveness analysis, compliance cost assessment, cost-benefit analysis and risk-risk analysis (Renda, 2006: 38). A CBA, *per se*, tends to focus on assessing the costs and benefits of one particular policy or project while RIA often applies CBA or other tools to assess the costs and benefits of a more than one policy option in order to determine the best of these options.

Thus, a CBA may be one element of conducting an RIA which may include a CBA of the overall impacts of a regulatory proposal together with an analysis of specific impacts, say on business and competition. (OECD, 2009: 29-30). Equally, there are other tools that can be used to conduct RIAs, some more quantitative and some more qualitative. Whatever tools are used, however, the intention is to ensure that the decision-making process regarding regulation is supported with empirical knowledge, is transparent and accountable (Radaelli, 2004) and takes into account possible unintended consequences.

According to the OECD (2008b: 4), the use of RIA as a formal regulatory quality instrument goes back more than 25 years. It was first introduced in the US in 1974, and since then most developed

² As is described later in the report, while the OECD approach is focused on efficiency and effectiveness, some countries have chosen to broaden this approach to include other social and environmental policy objectives

countries have been applying RIA to some extent to new and existing policies (Analytica, 2010: 1; OECD, 2009: 3). In the US, RIA was required on all 'major rules' that any federal agency intended to propose (Centre for Regulatory Effectiveness undated). It is important to recognise that originally, regulatory impact assessment was introduced in the US to assess the costs of regulation to business. According to Renda (2006: 8), impact assessment started "when US firms started complaining about the costs of regulation and uncontrolled 'regulatory creep', mostly as a result of newly passed environmental legislation". Even though RIA has an extensive history, its development, implementation and integration into public policy processes is said to be a long-term process and RIA implementation continues to be work in progress (OECD, 2008b: 4).

RIA as it was originally conceived, was a tool to identify the costs of regulation on the business sector, to support a process of deregulation in order to reduce the burden of regulation on the private sector, thus improving competitiveness (Kirkpatrick and Parker, 2006: 1). It comes, therefore, out of a specific political and economic context in the USA when the focus was very much on reducing the role of government in the market. Since then, however, the definition and purpose of RIA have widened, and the focus has shifted from costs only to both costs and benefits and recognition that regulation is not bad, *per se*, but needs to be assessed on a case by case basis. The public objectives have also been widened beyond the single objective of private sector competitiveness to include consideration of the social, economic and environmental impacts of regulation.

The broadening of the definition of RIA and the widening of its coverage follows a shift of focus from 'less' regulation to 'better' regulation. (Kirkpatrick and Parker, 2006: 1). According to OECD (Undated: 16), RIA aims to make transparent the costs and benefits of different regulatory and non-regulatory options, thus providing information necessary to make better regulatory decisions.

As a result of the widening of its definition and coverage, RIA is now primarily perceived as an instrument used by policy makers to predict and assess impacts of either existing or proposed policies and legislation, on social (effects on mortality, morbidity reductions, reductions in property loss due to accidents or measures of effects on wildlife populations), economic (effects on employment, operating costs, international trade, global competitiveness or distribution of income) and environmental aspects (Volkery, 2004: 6; Analytica, 2010: 1-2).

Nonetheless, RIA is not without its critics in terms of its effectiveness and its ability to deliver value for money. While widely adopted (with different degrees of scope) in developed countries, in many developing countries RIA is still perceived as a costly instrument that might not produce the expected outcomes in the short term (OECD, 2008a: 26). Unfortunately, although there is general literature available on RIA in developing countries, information on actual experience of RIA implementation in specific developing countries is very hard to come across.

Developing countries have particular challenges in relation to understanding the impacts of proposed or existing regulation, challenges posed by the social, environmental and economic challenges specific to such countries. RIA needs to be operated properly with due consultation and without manipulation of the process by special interests if it is to contribute to economic

development and poverty reduction. However, Kirkpatrick, Parker and Zhang (2003: 11) insinuate that in some cases where RIA exists simply to impress outsiders such donor agencies, decisions made by the executive are rubber stamped through the RIA process.

Thus the driver behind the adoption of RIA raises issues in relation to its uptake and sustainability. Ladegaard (2005: 10) notes that in some cases RIA has been introduced in developing countries in an aggressive manner by donor agencies and development consultants, something that poses a serious risk to its successful adoption and sustainable implementation. There are two significant risks associated with this approach: firstly, developing countries may undertake RIA to meet donor expectations, rather than being based on a strong belief in the potential benefits RIA can provide, thus undermining the real value of the tool; secondly, and related to this first point, RIA is becoming one of the reform buzz words of the decade and many sorts of governance reforms are packaged and marketed under the RIA umbrella even though they might not actually be related to RIA. The danger of this situation is that the understanding and benefits of RIA remain low, resulting in RIA being “thrown out with the bathwater once a new reform buzz appears”. (Ladegaard, 2005: 10)

According to Tschumi and Hagan (undated: 52), too much support or the wrong kind of support for example “the introduction of regulatory impact assessment methodologies which require a level of technical competence, resources and bureaucratic coordination that is far beyond the capacity of domestic government” can give results which are inconsistent with development objectives. Elliot and Hitchins (2006: 6) argue that the experience has been that many interventions by development agencies in regulatory reform such as regulatory impact analysis have tended to focus on ‘quick fixes’ based on Western experience. In most cases, either the programmes do not gain local stakeholders’ commitment or are inappropriate for local context and as a result they have limited effect or are unsustainable beyond the period of aid-funded support (Elliot and Hitchins, 2006: 6).

In Indonesia, Swisscontact introduced *Regulatory Impact Assessment (RIA)* as a tool for analysis of impact of regulation on businesses and households to raise the awareness of local governments about the potentially negative impact of regulations, to increase the capacity of local governments to produce “good regulations” and to stimulate public-private dialogue for improving the environment for businesses. As a result of assessment, specific regulations that need to be reformed are identified and jointly selected by government and other stakeholders and specific changes are proposed to the legislature.

Importantly, however, RIA was not regarded as a static tool but as part of a continuous process of reviewing new and existing regulations and the impact of any changes made. Emphasis was therefore to have RIA-like methodologies embedded and institutionalised within the system of local government. Swisscontact adapted RIA to be appropriate and affordable for the resources of governments in low-income countries (“right-sized”) – something that has not always been the case when RIA has been used in conventional interventions. Swisscontact developed the capacity of relevant parts of local government for RIA, promoted links between government and local technical specialists and raised awareness of regulatory good practices amongst influential stakeholders (such

as the media and legislators) to ensure that pressure for the use of RIA continued to be applied after Swisscontact had withdrawn (Elliot and Hitchins, 2006: 14).

Table 1: Format of an RIA Report used by the OECD (Source OECD (2008: 22)

<i>Section Title</i>	<i>Description</i>
1. Objective	Clearly state the policy objective(s) and goal of the regulatory proposal
2. Problem	Describe your assessment of the nature and extent of the problem to be addressed by the regulatory proposal
3. The regulatory proposal	Explain the regulatory proposal: • Describe the regulations • Outline the legal authority to make the regulation • List the groups likely to be affected by the regulation (citizens, business and within government) • Outline the enforcement regime and proposed strategy for ensuring compliance
4. Analysis of Benefit and Costs	Clearly outline the benefits and costs expected from the regulatory proposal for each group: • Administrative • Economic • Social • Environmental • Enforcement and Compliance
5. Compare the costs and benefits	Include a table comparing the cost and benefits for each of the above categories, listing the monetary values of each or providing a description.
6. Identify Alternatives	List the practical alternatives, including any non regulatory approaches that have been considered as options instead of the proposed regulatory approach.
7. Compare the costs and benefits of Alternatives	Describe the benefits and costs for each practical alternative that was considered.
8. Compare the alternatives with the regulatory proposal	Outline how and in what ways the identified regulatory proposal is superior to the alternatives that were considered.
9. Consultation	Describe the process of consultation that have been undertaken to collect stakeholder views. List all the groups that were invited to comment on the regulatory proposal and summarise their comments.

In countries like Macedonia, Poland and Bulgaria and the Baltic countries of Estonia, Latvia and Lithuania, RIA was adopted as a condition for integration or accession to the EU (Analytica, 2010: 4; Jacobs, 2005a: 4). The Baltic countries which acceded to the European Union in May 2004 received technical advice on public sector reform and on RIA introduction from authorities such as the Support for Improvement in Governance and Management (SIGMA), the World Bank, and a variety of bilateral donors including the UK, Sweden, Denmark, Norway, Finland and Canada (Jacobs, 2005a: 4).

For Estonia, a cautious use of resources afforded through a methodology such as RIA was particularly attractive in the face high regulatory costs and the excessive growth in regulation that had been experienced for more than a decade. RIA was also important in light of the fact that Estonia was an applicant country to the EU (Jacobs, 2005a: 5).

A resolution to have mandatory RIA for all draft legislation was adopted in Lithuania on 19 February 2003, a decision that was accelerated by their EU accession process. However, difficulties were experienced in the actual introduction of RIA. Firstly, the approach adopted had a strong technical focus and therefore a limited appeal to wider groups within society; secondly, implementation was slow and met with initial resistance from civil servants; and thirdly, there were methodological difficulties encountered in implementation.

Macedonia was helped with RIA introduction and implementation by the UK through the UK embassy (Analytica, 2010: 4). Thus RIA was introduced, in cooperation with the government of Macedonia, as part of a project called Building Administrative Capacities for EU Integration, Fund for Global Opportunities – United Europe. It was introduced as part of the broader regulatory reform undertaken in 2006. To assist improved regulation, the UK ambassador in Macedonia and the Macedonian Vice Premier for Economic Affairs promoted a new manual for RIA (Analytica, 2010: 4). RIA was streamlined into policymaking and all ministries were obliged to undertake an RIA during the process of proposing new laws, with effect from January 2009.

2.1. Cost-Benefit Analysis

Cost Benefit Analysis (CBA) is often compared to RIA. According to the OECD, theoretically CBA is the only methodology capable of answering the fundamental welfare economics question of whether a particular policy intervention will provide a net benefit from the point of view of the society as a whole (OECD, 2009: 74).

CBA is widely adopted as the formal methodological requirement underpinning RIA within OECD countries since the adoption of CBA is argued to maximise the contribution of RIA to policy decision-making. Jacobs (2006: 28) says RIA favours CBA because it is “the most inclusive and socially responsible method of public decision-making”. There is no country in which modern CBA consists of only monetary costs and benefits, and generally both quantitative and qualitative metrics are combined and presented systematically (Jacobs, 2006: 28).

The use of CBA is said to be “consistent with the underlying principle of welfare economics (and of regulatory policy), that the benefits to society as a whole of a particular policy proposal should exceed the costs” (OECD, 2008b: 14). Although CBA is regarded as the ‘gold standard’ RIA methodology, it has limitations due to data limitations, resource constraints and other factors which make the goal of fully quantifying and monetising benefits and costs likely to remain elusive (OECD, 2008b: 13).

Because of the practical difficulties of completing quantitative benefit/cost analyses, there is a range of other methods routinely used to assess regulatory proposals (OECD, 2008b: 13). In cases where the quantification of significant impacts that are fundamental to regulatory choice is not possible, other methodologies or variations of CBA have been suggested; for example Cost Effectiveness Analysis, Multi-Criteria-Analysis, Break Even Analysis, the Balanced Scorecard Approach, Business impact SME (Small and Medium Enterprise) tests, administrative burden tests, distributional analysis

and partial analyses (OECD, 2008b: 14; Jacobs, 2006: 29). According to Makgetla (pers comm. 2010) the South African government is focusing more on a qualitative than a quantitative approach to RIA.

While a CBA would focus on the net costs and benefits of a single project or policy, a tool such as Multi-Criteria-Analysis (MCA) evaluates the impacts of multiple policies simultaneously (Morimoto and Hope, 2004: 207). Morimoto and Hope (2004: 207) are critical of the use of CBA, feeling that it tends to be highly theoretical while a MCA is more practical, and therefore more useful in assessing real impacts.

Cost effectiveness analysis (CEA), on the other hand, “differs from benefit/cost analysis in that it takes the regulatory goal as a given and simply ranks different alternatives in terms of the cost of achieving the given outcome” (OECD, 2008b: 18). In the US, for health and safety-related regulation CEA is a requirement while CBA is mandatory in respect of all regulations (OECD, 2008b: 18). It does not, therefore, assess whether the benefits outweigh the costs, nor does it attempt to deal with distributional impacts – who benefits and who pays the costs.

2.2. The debate on CBA in the US

Over the past few years, the reliability of quantitative CBA in regulatory impact assessment has been the subject of heated debate amongst economists and practitioners, especially in the US where CBA has been criticised by some as a non-neutral, anti-regulatory tool that provides a misguided view of the costs and benefits of regulations (Renda, 2006: 85-88).

According to authors such as Ackerman, Heinzerling and Massey, the application of CBA to a number of past decisions would have had disastrous consequence in terms of efficiency and public health.

The authors mention three case studies: the removal of lead from gasoline in the 1970s and 1980s, the decision not to dam the Grand Canyon for hydroelectric power in the 1960s and the strict regulation of workplace exposure to vinyl chloride in 1974. They argue that use of cost-benefit analysis “would have gotten the answer wrong in all three cases”. Thus they conclude that CBA should not play a central role, at least for regulations involving substantial health, environmental or safety issues. CBA, according to Ackerman and Massey, amounts to “knowing the price of everything and the value of nothing”. In particular, the benefits of environmentally sensible regulations are often priceless, and unlikely to be captured by CBA, “an opaque and technically intricate process accessible only to experts, and one that all too frequently recommends rejection of sensible policies, on the grounds that their costs exceed economists’ estimates of their benefits.

Other authors, such as Richard Parker and David Driesen have heavily criticised the neutrality of CBA and described it as an anti-regulatory instrument for policy-making. Parker also argued that Hahn’s scorecard analysis is biased since it encompasses all rules for which a RIA was required – but RIA is required for the costliest rules, not for the most beneficial ones.

CBA approaches have been divided as follows:

- An indeterminate position, which takes CBA as one of a number of available tools to inform legislative decisions, representing economic efficiency as one possible policy objective together with ethical, safety, environmental, social and other issues. If this is the case, a full estimation of all expected benefits and costs is often extremely costly and time-consuming, and might delay implementation of much needed regulation.
- A 'cost cannot outweigh benefits' approach, currently adopted at the OMB, but seen as "inherently not neutral" since "[i]f cost falls below benefit, this criterion does not require a more stringent standard. But if cost outweighs benefit, agencies are forced to weaken their standard in order to comply."
- A 'cost equals benefits' or 'optimizing benefits' approach, which entails that regulatory interventions are planned only when they prove inherently efficient, i.e. up to a level where the marginal benefit of the intervention equals the marginal cost. This is certainly the more neutral version of CBA, but it is probably difficult to implement and is not adopted by the Office of Management and Budget (OMB) in the USA.

Today, the debate on the relevance and reliability of quantitative techniques in impact assessment has not reached finality. The dispute, however, seems to hinge more on the inherent limits of CBA in the quantification of net benefits for public health and environmental regulation, than on the usefulness of CBA in and of itself.

The US experience seems to demonstrate that CBA is not a panacea, and that a 'one-size-fits-all' method that easily adapts to sectoral, economic, social and environmental regulations is nowhere to be found. As a consequence, a careful and gradual introduction of sector-specific impact assessment techniques would eventually solve many of the issues raised by scholars in criticising the current emphasis on quantitative CBA.

2.3. Purpose

According to the OECD, the aim of RIA is to ensure that legislation or regulations are implemented only if they are efficient and effective (OECD, 2009: 3). The view is that too much regulation exerts a financial burden on the government budget and burdens the private sector resulting in reduced competitiveness, thus impacting on economic growth potential. This has certainly been the case in many countries. In Korea, for example, too much regulation caused reduced industrial productivity and loss of external competitiveness, causing the President in 1998 to order all ministries to reduce their existing regulation by more than 50 per cent (Lee, 2007: 6).

According to the OECD (2008b: 6), too much regulation results in a failure to focus on the most important rules, and RIA needs to be targeted at regulations with the largest potential impacts and the best prospects for changing outcomes in order to avoid administrative overload. This approach is based on the recognition that it is not always the case that government objectives are achieved through regulation. Other non-regulation policy tools can be used to address problems often with

equal, if not better impact. The following tools, according to OECD (2008c: 9), can give better outcomes than direct command and control regulation³:

- ❖ Establishing a general public information campaign to educate and warn people about the problem;
- ❖ Providing specific information directly to consumers to allow them to look after their own interests;
- ❖ Requiring suppliers of goods or services to give information to consumers before they buy their goods;
- ❖ Imposing a tax to discourage an activity;
- ❖ Applying a subsidy to encourage more of a particular behavior;
- ❖ Promoting the development of a scheme of “self-regulation” within an industry or group

Too little regulation, on the other hand, may result in misuse or inefficient use of resources (particularly common pool resources such as water) and may cause some sectors of the society to suffer because of the actions of others. A good example is of a factory discharging toxic waste into a river and polluting the water. The pollution reduces the fish stock downstream and makes the water unusable for communities and users downstream. In such a situation, to safeguard other water users, regulation either directly by limiting the level of toxic emissions or taxing the company’s production may be necessary (OECD, 2008c: 6).

Inadequate regulation can also compromise the health and safety of citizens, workers rights and the environment (Hudson, 2003: 2) so that regulation is required to protect these groups. In recent decades, regulation in these three areas has increased significantly. However, the introduction of formal regulations requires policing and enforcement of the regulation for effectiveness. This can be resource intensive, and is one reason (see the first report in this project) why governments might choose to adopt other methods such as self-regulation or voluntary agreements. These, however, are not successful in all contexts. For example, in a situation where there are noncompliant companies trying to cut costs and which will only respond to a change in the law, efforts to raise standards of hygiene and safety through self-regulation may be unsuccessful (Jacobs, 2005b: 9).

Inappropriate regulation, on the other hand, puts unnecessary obstacles in the way of doing business, creates negative perceptions and thereby can stifle economic growth (OECD, 2008c: 4). For example, according to Bannock (2002: 28), “there are 65 laws to comply with in order to register a

³ This approach is taken within a narrow definition of regulation as command and control, while in the first report in this project, regulation was defined more broadly to include any activities that are likely to change behaviour in the manner required, thus including information and awareness, self-regulation, pricing and so on.

business in South Africa". Inappropriate regulation may also have significant unintended consequences which may counteract the intended outcome, or have specific negative impacts on certain sectors of the population, such as the poor. For example the regulatory process can be undermined by lobbying from the regulated group or the rich, so that the regulations made serve their interests instead of those of the broader society, particularly the poor (OECD, 2008c: 7).

The intention is that RIA improves regulatory quality, which, in turn, improves government efficiency and effectiveness, thus increasing the ability of government to achieve its objectives (OECD, 2008c: 3) while also improving the efficiency and effectiveness of the private sector thus leading to increased economic growth. While regulation is necessary to generate government revenue and, inter alia, to maintain reasonable safety and environmental standards (Hudson, 2003: 5), because regulation can both promote economic and social welfare and lead to significant economic and social costs, there is need to assess regulations on a case by case basis, which is the basis of RIA (Kirkpatrick Parker and Zhang, 2003: 4).

2.4. Challenges in using RIA

This is not to say that RIA is a simple tool to use, or without its challenges. Radaelli (2004) highlights a number of challenges and concerns regarding the use of RIA. The first concern is that RIA, incorrectly applied, may bias the results towards the interests of one particular constituency, such as the business community. A second issue, and one that pertains particularly strongly in a highly unequal society such as South Africa, is the difficulty of addressing the distributional impacts of regulatory options through RIA. Further concerns that Radaelli cites include the difficulty in measuring such factors as the value of human life, or wilderness. Thiele (2000) cited in Radaelli, observes that RIA ignores threats to other species, to biodiversity, and to other components of human welfare, such as mental health, spiritual well-being, and social stability' (Thiele, 2000: 554). These concerns apply particularly to the use of compliance cost assessment and cost benefit analysis. While Radaelli points out, however, that there are a range of tools that can be used in RIA which can address these concerns, the challenge of valuing ephemeral factors such as spiritual value, sense of place, and biodiversity still remain significant. He also points out that despite these challenges, in the absence of RIA problems of 'distribution, fairness, equity and threats to the environment and biodiversity would still be there' (Radaelli, 2004: 4). Without RIA, he states, the decision-maker simply has to address these issues with less information.

A further challenge raised by Radaelli is that RIA requires 'time, institutional energy and human resources' (2004: 12). It is, therefore, not possible to cover every aspect of regulation, or every possible impact. Some countries use RIA extensively, but other countries have chosen, because of the resource intensiveness of the process, to use the tool far more selectively.

2.5. Methodology

According to Radaelli (2004) and as has been discussed earlier in this report, there are a range of methodologies for conducting an RIA, ranging from the use of full cost-benefit analysis to simpler checklists. Radaelli sees a general tendency towards a highly quantitative approach, but recognises that there are different views on what the balance should be between the quantitative or qualitative

elements. This is a particularly important discussion in a country like South Africa which, as a middle income country, has limits to financial and human resources, but also has a strong need to understand the impacts of regulation on, inter alia, growth, poverty eradication and the optimal use of scarce natural resources such as water. The European Commission recognises the value of both quantitative and qualitative elements of RIA but highlights that the real function of RIA is to identify the major trade-offs of regulatory choices.

It is not possible, within the scope of this report, to address all of the methodologies that can be used to conduct an RIA, or the benefits and limitations of each. However, the following outline, given by the OECD (2010a: 254) identifies some key steps in the practical application of RIA:

- RIA should start with an analysis and an articulation of the problem which creates the context for regulation, who is creating the problem, who is affected by the problem, the severity of the problem, and whether the problem requires government intervention;
- This is followed by an evaluation of costs and benefits, including a consideration of the processes for the implementation of the regulatory action. The RIA should include an evaluation of a number of possible alternative regulatory and non-regulatory approaches which include a “do-nothing” approach. The overall aim is to ensure that the final selected policy and regulatory approach provides the greatest net public benefit. There is need for detailed information to support the assessment of the possible costs and benefits of regulatory measures.

What is missing from this list, and what is considered extremely important by a number of RIA experts (see, for example, Radaelli, 2004) is the issue of stakeholder consultation. Stakeholder consultation is critical not only for purposes of transparency and accountability but also because stakeholders will have a keen sense of the likely costs, benefits and impacts of proposed regulation.

Makgetla (pers comm. 2010) sees RIA as a phased process, with three critical elements:

- Consideration of alternative approaches, including the ‘do nothing’ option,
- Conducting an impact assessment which will enable, at the very least, the consideration of unintended consequences and the order of magnitude of their impact, and
- Consultation with key stakeholders.

A critical part of effective RIA for Makgetla is the building of capacity in the state to conduct RIAs effectively.

The first step as outlined by both the OECD and Makgetla required a consideration of the following questions:

- What, in general terms, is the problem to be addressed?
- What is the specific policy objective to be achieved? and

- What are the different ways of achieving it? (OECD, 2008c: 4).

While conducting an RIA could involve a full cost benefit analysis that takes into account impacts on all groups within society, more commonly the focus is limited, and historically, has mainly been on the impacts on business and on government budget (OECD, 2008b: 9).

Ladegaard (2005: 2) points out that there are variations in the technical methods used to assess regulatory impacts across countries. While some countries use full-fledged benefit-cost analysis based on social welfare theories, most apply a mix of qualitative and easy-made quantitative models and methodologies (Ladegaard, 2005: 2). Ladegaard (2005: 5) further says only the regulatory impacts on businesses' paperwork requirements are assessed in some countries, whereas in others impacts on the environment, on competitiveness, on international obligations, or on regional distribution are assessed.

3. International experience in using RIA

This section outlines some of the international experience in using RIA, and highlights some of the different approaches and issues faced in the various country contexts. While most of the available information is on RIA in developed countries, there has been a deliberate attempt to find information on RIA in developing and middle income countries in order to draw possible lessons for South Africa from a more contextually appropriate set of experiences.

3.1. United Kingdom

In the UK, RIA is required by Cabinet (Jacobs, 1997: 28). However, Jacobs (2005b: 9) points out that unlike many countries in continental Europe, the UK administration is not based on a legalistic model, so that the Cabinet office does not have the legal authority to mandate ministries or agencies to conduct an regulatory impact assessment. Hence there is need for a more subtle form of persuasion and/or coercion ("carrot and stick") in these circumstances and the success of this model, Jacobs (2005b: 9) argues, depends on strong "central messaging" combined with support from a dedicated government unit.

RIA was first used in the UK in 1985 and initially the analysis involved business cost assessments only (Jacobs, 1997: 28; Hertin, 2004: 4). To begin with, reducing the burden of regulation on small business was the main emphasis, and it is argued that the focus still remains predominantly on removing red-tape and bureaucracy for business. The official introduction of RIA took place in 1998, according to Jacobs (2005b: 3), and approximately 200 RIAs are undertaken each year. According to Renda (2006: 28), the 'real' regulatory impact assessment was introduced in 1998 based on a thorough analysis of costs and benefits of identified regulatory options, including the 'zero option'. According to Jacobs (2005b: 2), all bills in UK are now accompanied by RIAs signed-off by the relevant Minister before they reach Parliament. Figure 2 shows the stakeholders of RIA in the UK.

According to Renda (2006: 41), the UK RIA model is heavily criticised for failing to adequately take into account goals other than the economic efficiency of proposed regulations and the following points are highlighted:

- The new RIA procedure still maintains a strong emphasis on protecting small businesses, an objective that seems at least partially inconsistent with the overall search for economic efficiency
- RIA is presented as a tool that may help regulators, with no ambition to become a panacea for policy-making or to entirely replace the 'art' of regulation with the 'craft' of cost-benefit analysis
- The cost-saving and efficiency-enhancing potential of the RIA model is still not confirmed by any empirical evidence
- Ironically, the approach adopted in transposing some EU directives into national law has caused an undesirable increase in administrative burdens and other regulatory costs in a number of cases. The adoption of EU legislation includes the transposition of the Data Protection Directive (95/46/EC) into national law with the Data Protection Act of 1998; which led (according to estimates by the UK chambers of commerce) to a 50 per cent increase in business compliance costs.

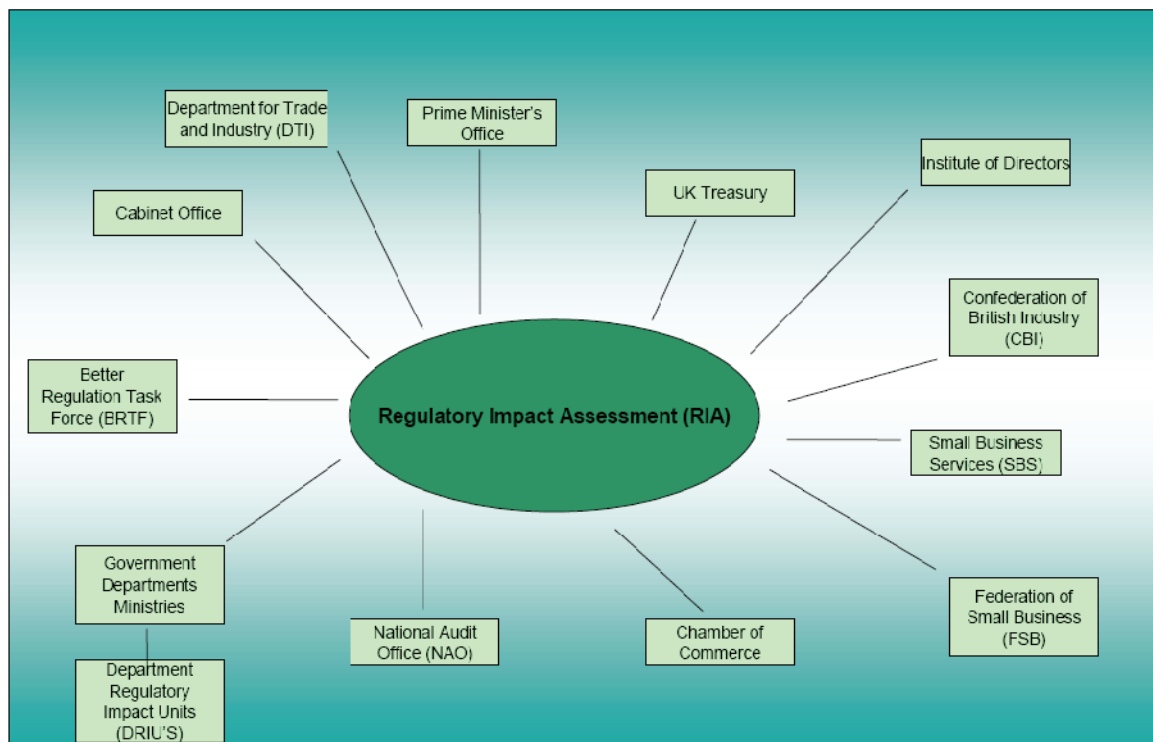


Figure 2: UK RIA Stakeholders (Source Jacobs (2005b: 6)).

Renda (2006: 31) argues that “the ambitious plans formulated by the UK government after 1998 did not fully materialize” because there was still a lack sufficient awareness of the need to enact cost-reducing regulations and to ease regulatory burdens among the administration, and as a result the

growth of the regulatory burden seemed not to have slowed down. Jacobs (2005b: 8) also argues that there is as yet no way of knowing the proportion of policies that are abandoned or whether a non-legislative solution has been found for the problem that will be at hand, before the move from the initial stage of the RIA to a partial or full RIA is done. Jacobs (2005b: 8) suggests that proper tracking and recording of the number of withdrawals would greatly improve the RIA system in the UK.

3.1.1. Case Studies

3.1.1.1. Overall Impact Assessment for the Water Framework Directive (2000/60/EC) in England and Wales

This case study looks briefly at the RIA done on the implementation of the EU Water Framework Directive. In terms of identifying the problem to be addressed through regulation, according to Defra (Undated: 1), government intervention was needed to address the following problems:

- Water quality problems caused by nutrients and hazardous chemicals which posed a risk to human health, a danger to animal and plant life, and made water unsuitable for amenity uses.
- Physical modifications which caused damage, or prevented access to, the habitats of aquatic animals and plants and affected the risks of flood or drought.
- Over-abstraction of water which caused low river flows, threatening the survival of flora and fauna and exacerbating chemical or nutrient pollution by reducing available dilution.

Thus government intervention to implement the Water Framework Directive (WFD) was necessary to provide the right incentives to protect and enhance the water environment. Government intervention in a situation like this ensures that polluters face the costs of polluting the water environment while, on the other hand, ensuring that positive externalities from a high quality water environment do not result in under-provision by the private sector. (Defra undated: 1).

The Water Framework Directive (2000/60/EC), the most substantial piece of EU water legislation to date according to Defra (Undated: 11), came into force on 22 December 2000. The requirements of the directive were for Member States “to aim to achieve ‘good chemical status’ and ‘good ecological status’ i.e. ‘good status’ in most inland and coastal waters by 2015, to prevent deterioration and to achieve the progressive reduction of emissions, discharges and losses of a list of Priority Substances (PS) and the cessation of Priority Hazardous Substances (PHS)” (Defra undated: 11). Member States were also required to establish a river basin district structure, to set appropriate environmental objectives for each water body, and to implement programmes of measures to achieve those objectives.

Two options were considered, against a reference case that included baseline trends; measures already agreed and funded not directly driven by WFD, and likely measures taken under other Directives.

Option 1

- all technically feasible measures are initiated with the aim of meeting WFD default objectives by 2015 or as soon as possible due to natural conditions, and the progressive reduction/cessation of PS/PHS

Option 2

- phased implementation to ensure an adaptive, cost-effective and proportionate long term approach meeting all WFD requirements by 2027 or as soon as possible thereafter given feasibility, proportionality and natural conditions and the progressive reduction/cessation of PS/PHS (Defra Undated: 13-14).

The proposal was not expected to have significant impacts on competition under option 1. The proposal was expected to have an impact on the capital expenditure of water companies. A large proportion of the costs falling on the water industry under Option 1 were incurred in improving wastewater treatment and so would not fall on water-only utilities but rather on the water and sewerage companies. However, the water-only companies also incurred costs for measures relating to water resources and morphology protection or restoration. (Defra undated: 45). According to Defra (2007: 44), the quantified costs and benefits for the whole of the UK associated with Options 1 and 2 were expected to be approximately cost neutral.

3.1.1.2. Regulatory impact assessment – sewage collection and treatment for London

Measures to limit the volume, frequency and adverse environmental pollution of discharges from the sewerage system (sewers and treatment works) of untreated sewage (domestic and industrial waste water mixed with rainwater run-off) resulting from overflows following wet weather were put in place in the UK in order to improve the environmental quality of the tidal reaches of the River Thames and River Lee (Department for Environment, Food and Rural Affairs (Defra), 2007: 1). This was done to prevent the adverse effects of effluent discharges on the environment. In the application of RIA in this case, it was on two project options, rather than a policy or regulatory option.

Many stakeholders were informed about the regulatory proposal and one alternative option. Letters were sent to stakeholders on the stakeholder database, informing them about the information note on Defra's website and asking them to give comments on the two options. However, it is said that the information note did not include detailed information such as specification of the options, their costs, bill impacts and environmental outcomes of the options because the note was published before Thames Water had made a detailed assessment of the options. The stakeholders included local councilors, Members of Parliament, Members of European Parliament, interest groups such as

rowing and angling clubs and environmental groups, and mainstream press/television/radio/web based news media. (Defra, 2007: 10). Defra (2007: 10) further states that “Two of the four replies received indicated a clear preference for option 1 and another welcomed any proposal that would provide further cycle or footpaths”. The policy options are given below.

Option 1

- One 30 km long tunnel to intercept and contain overflow discharges along the length of the tidal Thames, from Hammersmith in west London to Beckton in east London, and convey the waste water for secondary treatment at Beckton Sewage Treatment Works.

Option 2

- Two separate shorter tunnels comprising a west tunnel (with pump out to the existing sewer network), and an east tunnel, to intercept and contain overflow discharges along these stretches of the river. Collected waste water would be conveyed to Beckton and Crossness Sewage Treatment Works for secondary treatment.

Option 1, intercepting the overflow of discharges before they polluted the rivers was considered the most appropriate approach (Defra, 2007: 14). However, the process followed cannot be considered good practice, since limited information was provided to stakeholders on which to make their response.

Jacobs (2005b: 8) argues that the British Chamber of Commerce, Confederation of British Industry and Federation of Small Business, whose role is explicitly to lobby for the private sector, admit that although in theory the benefits of regulation should be greater than costs in reality “too often the cumulative burden is discounted and the dynamic effect on competitiveness and benefits claimed to justify the regulations are seldom quantified”. According to Hertin (2004: 2), the UK RIA process is well-designed and comprehensive in its coverage but “is very pragmatic with regards to the substance of the appraisal”. In practice most of the RIA reports sketchily address wider impacts and focus mainly on direct economic costs and benefits. There is limited effort to quantify regulatory impacts and advanced tools or methodologies are seldom used. (Hertin, 2004: 2).

Jacobs (2005b: 8) gives the following information on the state of RIA in UK based on a study with a sample of 200 RIAs.

- although 84 per cent of RIAs claimed that consultation had taken place, only 38 per cent noted with whom these discussions had taken place
- net benefits for consumers are believed to have been adequately considered in only 6 per cent of the cases
- the option of not regulating was only considered in 11 per cent of RIA's

- only 44% of the RIAs quantified all options
- 31% of the RIAs provided cost/benefit analysis for the preferred option only
- 24% of RIA provided no quantification at all

Basing the decision to adopt, amend or reject a regulation biased on this, Jacobs (2005b: 8) argues, greatly reduces the usefulness of the system.

3.1.2. Lessons learned

It is important to introduce complex RIA tools gradually, increasing the complexity of the RIA model over time as administrations become more familiar with the new organisational culture, instead of adopting overly complex procedures in a restricted sample of selected proposals (Renda, 2006: 39).

Sometimes if the Cabinet office has no legal authority to mandate ministries or agencies to conduct an RIA, as in the UK administration which is not based on a legalistic model, it is difficult to enforce RIA processes (Jacobs, 2005b: 9).

Even though RIA is said to have enjoyed remarkable success in the UK, it has weaknesses which may threaten its survival in the long term (Jacobs, 2005b: 27). This is given in the box above.

3.2. Ireland

Ireland adopted RIA in 1999 (OECD, 2010: 53). The Irish RIA, according to OECD (2001: 78), “requires an assessment of the market entry and competition impacts of proposed regulations”. Ireland is argued to have been slow in incorporating regulatory and non-regulatory alternatives to policies (OECD, 2001: 108). There is also, it would seem, still a need for Ireland to integrate RIA with public consultation processes if its regulatory management system is going to be effective (OECD, 2001: 109). A Quality Regulation Checklist and six statements of impact assessment are the principal tools for assessing the potential impacts of regulatory policy in Ireland. The manner in which the Quality Regulation Checklist together with the six statements of impact assessment is prepared is said to be comparable to a RIA in line with OECD best practices (OECD, 2001: 243). Nonetheless, the OECD (2001: 243) criticises the Irish approach which is alleged to rely only on qualitative criteria, completely ignoring quantitative methods like CBA which can be useful tools for making comparison between benefits to specific interest groups and costs borne by society as a whole. The Irish approach is also criticized for its use of discretion since there is no evidence that the Quality Regulation Checklist is systematically and uniformly applied throughout the administration (OECD, 2001: 243).

Based on the latest available OECD review of regulatory reform in Ireland, the OECD (2001: 10) argues that regulatory reform in Ireland remains weak despite the fact that it is broad and includes most of the OECD’s recommended regulatory quality tools, such as regulatory review. OECD (2001: 10) further alleges that RIA has not yet been implemented effectively, and proposed rules are not being subjected to economic assessment.

OECD (2001: 157) states that:

“Critics have claimed that Irish adoption of RIA was only to ‘keep pace with developments’ in other countries, without being convinced that a RIA is a crucial element for efficient, transparent and accountable regulatory decisions”

Irish Quality Regulation Checklist

- Is the proposed legislation and/or regulation absolutely necessary? Is the problem correctly defined and can the objective be achieved by other means (i.e. improved information, voluntary schemes, codes of practice, self-regulation, procedural instructions)?
- Will the legislation affect market entry, result in any restrictions on competition or increase the administrative burden on business?
- Is the legislation compatible with developments in the Information Society, particularly as regards electronic Government and electronic commerce?
- Outline the consideration which has been given to exemptions or simplified procedures for particular economic or social sectors which may be disproportionately burdened by the proposal, including the small business sector.
- Outline the consideration which has been given to application of the following principles:
 - Sunsetting, i.e. establishing a date by which the measure will expire unless renewed;
 - Review date, i.e. a predetermined date on which the efficacy and impact of the proposed new measure will be reviewed;
 - The “Replacement” principle, i.e. where the body of regulations/legislation in a particular area will not be added to without a corresponding reduction through repeal of an existing measure.
- Outline the extent to which interested or affected parties have been consulted, including interest groups or representative bodies where such exist. A summary of the views of such parties should be provided.

Source OECD (2001: 243)

3.3. Australia

Regulatory assessment was first introduced through legislation at the federal level in Australia in 1985 in the form of CBA, but has been a requirement by law since 1984 in the state of Victoria (Jacobs, 1997: 23).

In Australia, the conducting of an RIA is done in individual departments which develop their own support systems and provide internal guidelines to address concerns specific to their policy areas. RIA can be applied to new as well as to existing regulation (Cirillo and Hertin, 2004: 9).

The practice of RIA is said to have been significantly widened beyond business compliance costs, administrative burden and competitiveness effects in Australia, but it is argued that an attempt to use the procedure as a major tool for promoting the integration of social and environmental concerns across government has not been achieved (Cirillo and Hertin, 2004: 8-9). There has been poor implementation of ecologically sustainable development into high-level policy-making processes and the lack of guidance on how to reconcile economic, social and environmental objectives has been identified as a major obstacle for sustainability impact assessments (Cirillo and Hertin, 2004: 8).

Table 2⁴ below contains some examples of RIAs conducted in Australia. Of interest is that all of the RIAs considered the 'no policy change' option, most included some degree of consultation, and each contains a conscious identification of economic, social, and environmental implications. Also of interest is that the approach adopted is largely qualitative, with only one of the cases showing a quantitative approach.

⁴ Acronyms in Table 2: **BCA** Benefit-Cost Analysis; **CEA** Cost-Effectiveness Analysis; **COAG** Council of Australian Governments; **CoA** Commonwealth of Australia; **CRR** Committee on Regulatory Reform; **ORR** Office of Regulation Review **ESD** Ecologically Sustainable Development; **NCP** National Competition Policy; **RIA** Regulatory Impact Analysis; **RIS** Regulatory Impact Statement; **NSESD** National Strategy for Ecologically Sustainable Development

Table 2: Examples of RIAs in Australia (Source: Cirillo and Hertin (2004: 11))

Policy initiative	Year	No. of pages	Lead Department or Agency	Options	Type of analysis	Economic impacts	Social impacts	Environmental Impacts	Consultation
Financial services reform (10 policy proposals)	2001	56	Australian Securities and Investment Commission	On average 3 options for each proposal, including "no policy change"	- Mainly qualitative, for some proposals costs are quantified - includes all options - Different affected groups identified	Several benefits and costs for each proposal, but not attributed to different groups	No	No	Extensive, over 5 weeks
Solitary Islands Marine Reserve Management Plan (Regional relevance)	2000	14	Environment Australia	2, including "no policy change" and "new zoning"	- Qualitative, for each option - Regional impacts - Wide range of affected groups identified	Impacts on fishing and tourism Impacts on small business	A few social issues addressed, including unemployment	Extensive Include mainly biodiversity protection issues	Involved Parks authorities and committees
Levy on mushroom growers (Minor proposal)	2001	11	Horticulture Policy, Food Business Group, Agriculture, Fisheries and Forestry - Australia	3, including "no policy change"	- Qualitative	Compliance costs and impacts on small business	No	No	Limited
Amendment to migration legislation	2000	34		4, including "no policy change", i.e. self-regulation as well as quasi-regulation and stricter regulation	- BCA for each option - Quantitative, use of consultants - Identification of affected groups	Costs of enforcement and compliance, protection in relation to national interest issues	Ethical behaviour of business	No	Departments, regulatory bodies and a wide range of other stakeholders, including ethnic community organisations
Fisheries Management Plan – State Queensland	1999	8		3, including "no regulation", "no policy change" and "self regulation"	- BCA - Qualitative - Not very detailed - Identification of affected groups	Generic Mainly include profitability and costs for R&D	No	Genetic Mainly include ESD and protection of fish species	

3.4. USA

The assessment of costs and benefits of new regulations in the US, according to Renda (2006: 8), dates back to the 1960s under the Nixon administration. A version of RIA began in 1974 as inflation impact assessment and was later developed to cost-benefit analysis in 1977 (Jacobs, 1997: 28). Renda (2006: 9) argues that the US government's interest in promoting the use of cost-benefit analysis in assessing the prospective impact of proposed regulations increased under the Ford administration. Executive Order 11281 of 1974 was issued by US President Ford requiring all major proposals for legislation, rules, and regulations to be accompanied by an Inflation Impact Statement (Echeverri-Carroll and Ayala Undated: 13). The Inflation Impact Assessment, Renda (2006: 9) argues, can be considered as a first version of what later came to be Regulatory Impact Assessment in the US. According to Renda (2006: 10), Executive Order 12291 issued in 1981 under the Reagan administration required federal agencies to adopt 'a real regulatory impact analysis'. The scope of assessments broadened over time to consider all types of significant regulatory costs and benefits; with emphasis on the role of economic analysis in the assessment of these costs and benefits (Lee 2002: 5).

The requirements of Executive Orders which mandate RIAs to be conducted were modified over the years. For example Executive Order No. 12291 of 1981 required that each RIA for a major rule should include a cost-benefit analysis, while Executive Order No. 12866 of 1993 modified it to include more non-quantifiable costs and benefits (Lee, 2002: 6). The Reagan administration required agencies to send their proposed regulations and cost-benefit analyses in draft form to the Office of Management and Budget (OMB) for review before they were issued.

This centralised review, which continued under the Bush administration in the 1990s, was criticised for increasing regulatory burdens. With a staff of less than 40 professionals, the OMB had been reviewing about 2 200 regulations per year (White House undated). Renda (2006: 13) points out that OMB's overwhelming workload in the regulatory review process was one of the major problems to be solved in the effective implementation of RIA. Thus President Clinton issued Executive Order 12866 on 30 September 1993 with a minimum threshold specifying that only regulations whose expected impact was greater than US\$100 million were subject to mandatory ex ante impact assessment (Renda, 2006: 13-14). This allowed agencies to issue less important regulations without OMB review in order to focus OMB's resources on the most significant rules (White House undated). By focusing on the most important rules, OMB was able to add greater value to its review.

There was increased selectivity in the number of reviews done by OMB so that Executive Order 12866 in essence freed up limited staff resources to concentrate on the more significant rules which resulted in a higher percentage of changes to the rules reviewed (White House undated). As a result, according to White House (undated), of the 578 reviews completed in the first six months of the Executive Order, only three went beyond 90 days and those delays were requested by the agencies. In the first year of Executive Order 12866, the number of significant reviews done by Office of Information and Regulatory Affairs (OIRA), a subsection of OMB, had gone down to 900 per year, a reduction in 60% of the 2200 per year average reviewed prior to this executive order (Renda, 2006: 14).

The US RIA model (Renda 2006: 20-21)

In the initial stage of the RIA the proposing agency drafts a preliminary RIA form, comparing different regulatory options – which must include

- the so-called ‘zero option’ (leaving the existing regulation unchanged)
- a rough estimation of benefits and costs associated with each alternative option and
- an indication of the relevance of the expected impact of the proposed regulation

This is the *conditio sine qua non* for the activation of the RIA procedure.

The RIA form is then subject to a 60-day notice and comment period, in which interested parties can file their comments and suggestions regarding the regulatory option chosen by the agency.

After the notice and comment period, the final RIA form is completed as an obligatory step before a final proposal can be drafted and submitted for approval. At this stage, the OIRA has 90 days to approve or reject the proposed regulation on the basis of the quality of cost-benefit analysis performed by the agency.

If the proposal is approved, the proceedings go forward. If not, negotiations between OIRA and the proponent agency ensue. During this second stage, OIRA can call upon its power to reject proposals at will, until the proposal is accompanied by a sufficiently detailed and precise regulatory impact analysis.

Interestingly, the number of rules returned or withdrawn by OIRA dramatically increased under the Bush administration.

According to Hahn (1997: 277), the RIA is typically performed by the agency proposing the regulation. Hahn (1997: 278) observes that several studies that evaluated RIAs found common shortcomings which include inadequate consideration of alternatives, incomplete estimation of benefits and costs and various methodological errors. Hahn (1997: 278) further argues that “in a few cases, RIAs have had a substantial impact and led to more efficient rulemaking (but) in other cases RIAs provide insufficient information to aid the rulemaking process (and sometimes) the RIAs are simply used to help justify political decisions”.

The scope of application of RIA has also been criticised. RIA procedures only involve federal agencies and not the independent authorities that normally deal with key elements of economic regulation (Renda, 2006: 24). Renda (2006: 24) further says that “many commentators have criticised the

decision to limit the application of RIA scrutiny to all new rules except core economic and social rules enacted by giant regulators, such as the FCC (Federal Communications Commission), the FTC (Free Trade Commission) or the SEC (Securities and Exchange Commission)”).

3.4.1. Lessons

Transparency in RIA in the US is achieved through the public availability of proposals, comments, complaints and communications between OIRA and agencies, and through the massive use of notice and comment procedures (Renda, 2006: 22).

Opening the door to mandatory public consultation enables increased participation by the general public in the early stages of the regulatory process but is a double-edged sword as it exposes regulators to risks of lobbying and capture (Renda, 2006: 22).

According to Renda (2006: 23), two studies were carried out to evaluate RIA in the USA, one in 2000 analysed 48 proposed regulations subjected to RIA between 1996 and 1999, and another in 2004 analysed 55 proposed regulations subjected to RIA between 1981 and 2000. In the two studies, similar results were obtained which showed that:

- ❖ in 27% of the cases agencies had not considered alternative options
- ❖ only in 31% of the cases had agencies quantified both expected costs and benefits of proposed regulations
- ❖ only in 63% of the cases had the proponent agency calculated all identified costs
- ❖ only in 28% of proposals had the agency calculated the net present value of the regulatory intervention

3.4.2. Case Studies

3.4.2.1. Regulatory impact analysis of national primary drinking water regulations for inorganic chemicals in 1989

In 1989, Wade Miller Associates, Inc carried out an RIA on proposed national primary drinking water regulations for inorganic chemicals. The RIA was carried out as per Executive Order 12291 which requires the comparison of costs and benefits of all major rules. At the time, there was a need for the EPA to develop new or revised drinking water regulations for asbestos, barium, cadmium, chromium, mercury, nitrate and selenium inorganic chemical contaminations, in compliance with the Safe Drinking Water Act Amendments of 1986 (EPA, 1989: 1-2).

In the RIA, however, consideration of alternative regulatory approaches and strategies for implementing the inorganic chemical contamination regulations were limited because the proposed standards and monitoring requirements were mandated by statute. There was thus no flexibility to take ‘no action’. The Agency was committed to setting Maximum Contaminant Levels for each contaminant as close to the Maximum Contaminant Level Goals as possible (EPA, 1989: 1-2).

The costs for the proposed Maximum Contaminant Level were estimated for each contaminant and were then aggregated to calculate national costs. The total costs included capital costs of treatment and waste disposal, operation and maintenance costs and monitoring costs (EPA, 1989: 3-5).

The benefits of removing contamination from drinking water would, traditionally, be expressed in terms of diseases avoided. In this instance, however, no usable dose/response data for the contaminants was available since inorganic chemical regulation was based on deadly health effects. Since it was not possible to calculate the number of cases of avoided unfavorable health effects, the benefits associated with regulating inorganic chemicals in drinking water were presented only in terms of a reduction in the number of people exposed under the various Maximum Contamination Level alternatives. The estimate of health damages avoided is said to be an underestimation of the actual total benefits because of the non-inclusion of certain intangible benefits (EPA, 1989: 5-6).

All executive agencies are required to consider small entities in their regulatory design and implementation under the Regulatory Flexibility Act. This is done so as to encourage regulatory agencies to minimize the burden of regulation from falling disproportionately on small entities (EPA, 1990: 4). A regulation that has no significant impact on a 'substantial' number of small entities will receive a regulatory flexibility analysis certification (EPA, 1990: 4). In conformity with the Regulatory Flexibility Act, EPA gives the 'substantial' number of small entities (as a percentage of the total) as not exceeding 20% (EPA, 1990: 4). Small entities in this case were defined as water utilities serving fewer than 50 000 people, and made up 1.7% of the total in this case (EPA, 1990: 4). Thus according to EPA guidelines the small entities that would incur 'significant' increases in costs were not a substantial proportion of the regulated population.

The Regulatory Flexibility Act also requires a comparison of the annual cost of production inclusive of compliance costs and the existing cost of production in order to determine the magnitude of the impact of regulation on production costs. An increase in production costs of 5% and above is defined by EPA guidelines as a significant impact. The aggregate or macro-level analysis produced an increase in production costs of between 0.05% and 0.15 %. On the other hand, a micro-level analysis (an examination within a system size category) showed an increase in production costs ranging from 63% to 206%, with a 146% average increase for utilities serving less than 50 000 people. Despite the findings of the Regulatory Flexibility Analysis, EPA considered several thousand systems to be a substantial portion of the total systems. While still providing protection of public health, the EPA therefore also tried to provide greater flexibility to small systems. In addition, some monitoring requirements for systems serving fewer than 3 300 people were reduced (EPA, 1989: 6).

3.4.2.2. Regulatory impact assessment of the final water quality standards for the San Francisco bay/delta and critical habitat requirements for the delta smelt 1994

Federal agencies in the USA are required, as per Executive Order 12866, to identify the need for regulation, assess the costs and benefits of the regulation, and to analyse the possible alternative approaches to regulation (EPA, 1994: ES-1). In this case study, the RIA addressed the regulation of water quality standards for the San Francisco Bay/Sacramento-San Joaquin River Delta estuary

promulgated by the EPA under the Clean Water Act; and the Fish and Wildlife Service designation of critical habitat for the delta smelt under the federal Endangered Species Act (EPA, 1994: ES-1).

The San Francisco Bay/Sacramento-San Joaquin River Delta estuary is important for various species and as a source of water for urban and agricultural supply. The water is diverted for local use and for export, and some is sent to the arid, southern parts of California (EPA, 1994: 2-3). During periods of low outflow or high pumping, water flows upstream, which is known as 'reverse flows'. Many water organisms are affected by this process as well as by industrial cooling by industries which use estuarine water for cooling (EPA, 1994: 2-5).

At the time there were conflicting demands between water uses. On the one hand water users wanted increased diversions for agricultural and urban water to meet the increasing urban population growth. On the other hand commercial fisherman, recreational users and environmental groups wanted increased protection for the water system to curb an increasing decline in ecosystem services and fisheries (EPA, 1994: 2-6).

There was thus a need to introduce regulation in the form of water quality standards to protect the designated uses of the estuary. Workshops were held in this regard (EPA, 1994: 2-11) and four alternative water quality standards to protect the designated uses of the estuary were considered (EPA, 1994: 2-11). Implementing the water quality standards would affect water supply and delivery (EPA, 1994: 3-11).

Under the requirements of regulatory flexibility analysis the small entities which were the focus of this regulatory impact analysis were small farms. The analysis found that there would not be significant economic impact on a substantial number of small farms. However limited economic impacts on the urban sector were identified (EPA, 1994: 8-1).

3.4.2.3. Regulatory impact analysis for the proposed long term 1 enhanced surface water treatment and filter backwash rule

This regulation addressed an improvement in public health protection through the treatment of drinking water for microbial contaminants. The rule targeted small drinking water systems serving less than 10 000 people. Although the small water systems were argued to have limited capabilities for investing in new treatment technologies or maintaining complex monitoring regimes compared to large systems, it was acknowledged that their customers were entitled to health protection similar to the protection provided to large system customers. Inputs from stakeholders, which included small systems operators, consumers, and affected States were incorporated into the RIA process (EPA, 2000: 1-3).

The EPA performed an economic impact analysis which was a series of distributional analyses to identify the potential direct and indirect regulatory impacts on 'the cost of compliance for State, local, and Tribal governments, and small businesses; the effect of rule implementation on sensitive subpopulations; and the potential for disproportionate impacts on low-income and minority populations' (EPA, 2000: 1-8). Under Executive Order 13084, the EPA is not allowed to issue a regulation which is not required by statute, that significantly or uniquely affects the communities of

Indian Tribal governments, and that imposes substantial direct compliance costs on those communities. Such a regulation may only be issued if the Federal government provides the funds necessary to pay the direct compliance costs incurred by the Tribal governments or if the EPA consults with those governments (EPA, 2000: 7-10). In consideration of environmental justice-related issues concerning the potential impacts of the proposed regulation, the EPA consulted with minority and low-income stakeholders. The outcome of the consultation with the minority and low-income stakeholders was the recognition and support for the fact that these minority and impoverished populations served by small systems would realize the health protection benefits being provided to populations served by larger systems (EPA, 2000: 1-9). There were three regulatory alternatives that were considered in addition to the proposed regulation (EPA, 2000: 3-1).

“If it is determined that the rule would not have a ‘significant impact on a substantial number of small entities,’ then the Agency can certify the rule”; otherwise the agency is required to prepare an Initial Regulatory Flexibility Analysis for a proposed rule, or Final Regulatory Flexibility Analysis for a final rule (EPA, 2000: 7-11). It was found that a substantial number of small systems would be significantly impacted by the rule, thus the EPA prepared an Initial Regulatory Flexibility Analysis (EPA, 2000: 7-14).

3.5. Uganda

RIA is required for all regulatory and policy proposals in Uganda (UNEP undated). The introduction of the Ugandan RIA process was funded by the UK Department for International Development (DFID) (Welsh and Waddington, 2005: 3). Uganda was financially supported by DFID in piloting a two-year regulatory impact assessment project (OECD, 2008a: 62). Welsh and Waddington (2005: 4) argue that RIA supports the private sector by equipping it with information they need to make a case for reform. According to Welsh and Waddington (2005: 4) the “central role for the private sector in reforming the business environment is to act as an agent for change by pressurising government for reform”.

The Uganda RIA is seen as, according to Welsh and Waddington (2005: 4), an example of how donors can collaborate with the private sector in business environment reforms and as “a useful case study for understanding both the range and the duration of interventions donors will need to consider when choosing to support the introduction of RIA in a developing country”. In the case of Uganda there appears to be a very active role for business and external forces in influencing regulatory policy. There are some concerns to this approach which has favoured intervention from the business sector. Kirkpatrick, Parker and Zhang (2003: 13) argue that if RIA is to contribute effectively to economic growth and poverty, it must be carried out properly and should not be manipulated by special interests in this way. They further state that in some developing and transition countries “consultation has tended to be limited to government and the business sector, with consumer interests and other civil society interest groups being under-represented in the consultation process”. This would appear to be the case in Uganda.

3.6. Tanzania

Through the Business Environment Strengthening for Tanzania (BEST) Program, Tanzania endorsed the need for broad regulatory governance improvements through the adoption of good regulatory practices, such as Regulatory Impact Analysis (RIA), within the broader reform of government and the public administration (World Bank, 2010: xi). The focus of the BEST programme was to have a step-by-step approach to implementation of RIA while establishing the right institutional structures to address the stock and flow of regulation. RIA was adopted by the government as the preferred technique for assessing both quantitative and qualitative impacts of laws and regulations on the investment climate (World Bank, 2010: 10).

The World Bank (2010: 13) argues that Tanzania already has a basis for the RIA system because its current process of decision making incorporates most of the elements of the RIA process. The Tanzania RIA brochure is consistent with the OECD principles (World Bank, 2010: 13). The key institutions championing the introduction and implementation of RIA are the Ministry of Finance which has been instrumental in pushing for better regulation initiatives including the introduction of RIA and the Ministry of Planning, Economy and Empowerment which has been an important supporter for reform and the original home for the Better Regulation Unit (World Bank, 2010: 13).

RIA was conducted as part of the development of the 2007 Land Registration Bill. In 2004, an RIA was conducted on two labour laws and discussed at one or more workshops with stakeholders involved in the reform process. However the RIAs have not been widely publicized. The methodologies used appear to have been qualitative and general, oriented to the consultation process. There was no detailed information on costs or savings of the proposed reforms, and the institutional consequences of the reform and implications for the operation of labor markets were not specified. (World Bank, 2010: 26).

Furthermore, according to the World Bank (2010: 26), “it appears that no evaluation of the experience was carried out for any of these RIAs. In spite of the endorsement by government of the use of RIA it is not clear whether other RIAs have been conducted in general or on any of the other BEST program components. The BEST Web site does not contain any information on RIAs that are planned for the current year or beyond”.

RIA is not yet generally applied in Tanzania and its application in policy and lawmaking processes is clearly at an early stage. It appears that, where RIA has been used, it has been used as an ad-hoc choice rather than a part of an overall plan to introduce the technique (World Bank, 2010: 36). This may at least in part be due to its introduction as a donor-driven programme, rather than a programme arising from needs identified by government itself.

3.7. Republic of Korea

In Korea, RIA, which was first introduced in 1997, is legislated as a tool for improving the quality of new regulations (OECD, 2010b: 29). It is a requirement that RIA be conducted for all types of legislation (OECD, 2010b: 58). Regulations are constantly reviewed and updated and if need be, withdrawn (OECD, 2010b: 29-30).

Korea became one of the most regulated economies in the 1980s. This is attributed to the government-led, export based strategy of economic development it adopted since the 1960s. Excessive government intervention is believed to have contributed to low industrial productivity and loss in external competitiveness. Regulatory reform was then introduced as an official policy to deal with these distortions and inefficiencies (Lee, 2007: 3).

According to Lee (2007: 5), the Basic Act on Administrative Regulations was enacted in 1997, requiring mandatory regulatory impact analysis on all new and important regulations. At the same time, instead of focusing on enhancing the quality of existing regulations, the government focused on reducing the number of regulations and required, perhaps somewhat arbitrarily, that all ministries reduce the number of their regulations by more than half (Lee, 2007: 7).

Ministries are required to prepare RIA for all new and important regulations to prove the need for and appropriateness of the proposed regulation. The regulatory proposal is reviewed by a Regulatory Reform Committee before submission to Cabinet. (Lee, 2007: 17). The Regulatory Reform Committee is composed of 25 members comprised of the Prime Minister, a chairperson from the private sector, 6 government members and 17 civilian committee members (Regulatory Reform Committee undated).

Lee (2007: 20) says that for Korea the government took a decision that regulations without foundation of laws, overlapping regulations and regulations which were contrary to international agreements or global standards should be eliminated while regulations with low compliance rates or whose costs outweighed their benefits should be reviewed. Table 3 below shows the total number of regulations passed per annum in Korea, those that were reviewed, and those that were improved or removed as a result of the review process.

Table 3: Korea Regulatory Statistics (Source Lee (2007: 21))

Year	No. of Regulations (at year end)	Regulations Reviewed	Improved or Removed
1999	7,928	737	279
2000	6,910	1,102	400
2001	7,243	1,209	397
2002	7,541	897	306
2003	7,731	947	285
2004	7,860	1,054	307
2005	8,017	1,423	424

Year	No. of Regulations (at year end)	Regulations Reviewed	Improved or Removed
2006	8,084	1,076	245
Total		8,445	2,643

In Korea, RIA is applied only to ‘significant’ regulations; that is regulations with either an annual impact exceeding 10 billion won or an impact on more than 1m people (OECD, 2001: 156). At the time of writing the exchange rate was 1 USD = 1 127.70 KRW and on average 1 USD = 1 290 KRW in 2001.

3.7.1. Lessons learned

According to Lee (2007: 31), one of the key lessons from Korea is the value of creating “an independent body at highest level of the government, and let[ting] it control regulatory quality and check the “pro-regulation” tendency of line ministries”. However, without sufficient capacity, the creation of such an approach can result in significant delays in the implementation of necessary regulation. Of interest is that the Korean approach has involved substantial private sector involvement in the oversight of regulation. This has, however, primarily focused on the business sector, and social and environmental aspects are not well represented.

Harmonising regulatory reform with larger policy reform is found to be a difficult task (Lee, 2007: 32). For example, if there is no reform at the local government level in form of an improvement in the attitude of public servants the benefits of regulatory reform to the citizens will be undermined.

The Korean example also shows that for successful RIA there is a need to strengthen the understanding of the potential alternatives to traditional regulation.

3.8. Mexico

In the process of introducing a government-wide regulatory reform programme to reduce regulatory costs and barriers to entry and to increase the quality and transparency of the public sector, the Mexican government introduced regulatory impact analysis (World Bank, 2008: 1). Regulatory reform was introduced by a Presidential directive in 1995 in form of CBA (Jacobs, 1997: 26). Mexico then amended two framework laws in 1996, the Administrative Procedures and Technical Standards laws, to implement regulatory impact analysis, in line with an OECD recommendation that governments should integrate regulatory impact analysis into the development, review, and reform of regulations (OECD, 1999: 50). The Mexican RIA requirement is established by law which states that “all draft regulations with a potential impact on business activity must be submitted to UDE for review, along with a regulatory impact statement (RIA)” (OECD, 1999: 158). The UDE is the Economic Deregulation Unit (UDE) within the Ministry of Trade and Industry, responsible for deregulating or re-regulating specific economic sectors.

According to a study done by the World Bank, “[y]early reports (show) that about 20-30 percent of proposals received are subject to detailed scrutiny (which involves requesting corrections to the regulatory impact assessment or detailed suggestions or comments on regulatory content)” (World Bank, 2008: 27).

Table 4 outlines the criteria used by the Mexican government to determine the nature and intensity of RIA to be conducted on any particular regulatory or policy proposal.

Table 4: Mexican Threshold criteria in preparing a RIA (Source: OECD, 1999: 160)

Level of impact	Characteristics of costs	Level of quantification required
Low	Total annual costs do not exceed 5 million pesos (1997). Negligible impact on employment and business productivity	No quantification required. Qualitative description of costs and benefits
Medium	Annual costs between 5 and 500 million pesos (1997). Non-negligible impact on employment and productivity. Affects some economic sectors but effects are neither substantial nor generalised.	Quantification of costs and benefits suited to quantification. Qualitative description of the rest.
High	Annual costs greater than 500 million pesos (1997). Generalised impact on multiple sectors of the economy, employment and business productivity. Substantial impact on a particular sector, industry or region.	Complete quantification of all costs and benefits.

The success of the Mexican RIA implementation, according to OECD (1999: 50), is attributed to the following:

- ❖ the requirement for political accountability which requires an RIA to be signed by a deputy minister (or director general for lower-level actions)
- ❖ focusing on costly regulations which maximises the impact of limited RIA resources
- ❖ the inclusion of a number of possible impacts and quality aspects to be assessed.

Table 5: Number of draft regulatory proposals in Mexico between January 2007 and October 2009 with and without compliance costs (Source: Pérez, 2009: 14).

	2007	2008	2009
Draft regulatory proposals:	1082	1281	932
with compliance costs	431	370	241
without compliance costs	651	911	698

According to OECD (2004b: 29), the use of RIA for each regulatory proposal made by any institution of the federal administration is compulsory. A RIA is required from all ministries and decentralised organs of the federal administration for every regulatory proposal that imposes compliance costs on private agents (OECD, 2004b: 25). Despite the success of RIA implementation in Mexico, “data quality in RIA remains an issue that could be addressed through improved data collection strategies and targeted training” (OECD, 2004b: 29).

3.9. Summary

While the use of RIA is widespread in developed countries, and is used in some developing countries, Ladegaard (2005: 5) asserts that perhaps the use of RIA is not as advanced as countries, donors and development consultants claim. Implementation gaps are said to have been found in reviews of transition and developing countries that have introduced RIA.

Table 6 provides a summary of the status of RIA implementation in selected countries.

Table 6: Implementation of RIA in selected countries (Source Ladegaard (2005: 6))

Country	Status of RIA implementation	Formalization of RIA Requirements	Scope of coverage
Korea	Adopted 1998	Law	Primary laws and subordinate regulations. RIA is not required for the review of existing regulations.
Mexico	1996, expanded 2000	Law	Primary laws and subordinate regulations. RIA does not apply to the review of existing regulations.
Serbia	Adopted 2004, implemented 2005	Law	Primary laws and subordinate regulations. RIA does not apply to the review of existing regulations.
Macedonia	Adoption in process	Framework Law in initial drafting phase.	Primary laws and subordinate regulations. RIA will be applied to targeted existing regulations.
Uganda	Under preparation since 2000	n.a.	RIA may require policymakers to specify whether regulatory proposal will entail additional costs to small businesses, what any such costs are, and how much the typical small business in the sector is likely to have to pay. RIA may also look at distributional impact on tribes, religious groups, and the different regions of the country.
Poland	Adopted 2001	Resolution of Council of Ministers	All new primary laws and subordinate regulation. RIA not required in review of existing regulation. As a minimum RIA should cover impacts on i) public finance, ii) labour market, iii) competitiveness iv) regions

EU	2003	Communication from the Commission	Major regulatory and/or non-regulatory proposals with significant economic, social and / or environmental impacts. Proposals with a significant impact on major interested parties Proposals that constitute a new policy, policy reform and/or significant change to existing policy Proposals that involve major regulatory issues (subsidiarity/proportionality/choice of regulatory instrument) The new procedure does not apply to Community decisions that derive from the executive powers of the European Commission, e.g. adoption of EU funded projects, decisions in application of EC competition law, etc.
UK	Adopted 1985, expanded 1996, 1998 and 2004	Government Policy	Any proposal for which regulation is an option – including both primary and secondary legislation – that would have a non-negligible impact on businesses, consumers, voluntary organizations and charities, social groups, and the public sector. RIA is also applied to existing regulation.
Denmark	Adopted 1966, expanded 1993, 1995 and 1998	Government Policy	All primary laws. RIA is not applied on secondary regulations. However, from 1st of January 2004 all secondary legislation on business has to be tested in a Business Test Panel. RIA is not applied to the review of existing regulations.
United States	Adopted 1977, expanded 1981	Presidential Order	Primary laws in selected cases and all subordinate Regulations

According to the OECD (2010a: 254) the level of formal authority and political support are important for the successful implementation of RIA procedures. The four different bases from which RIA policies may derive their authority are

- ❖ law
- ❖ a presidential order or decree
- ❖ a prime ministerial decree or guidelines of the prime minister
- ❖ a directive or a resolution of the cabinet or the government

Although it may appear that the establishment of RIA via legislation would convey the greatest authority, OECD (2010a: 254) states that there seems to be little, if any, evidence to support this

supposition. OECD (2008b: 27) points out that the establishment of RIA via legislation does not necessarily convey the greatest degree of authority on the policy as there is no evidence from OECD countries to support this. Basing RIA requirement on other non-legislative instruments is said to be effective, notably in the USA and Australia (OECD, 2008b: 28).

4. Lessons

There are a number of lessons that can be drawn from the international experience in the implementation of RIA which are relevant to South Africa and to the water resources regulatory context. This section highlights some of these lessons.

4.1. Understanding the drivers

It is important to recognize that when it comes to RIA design or implementation there is no one-size-fits all method as RIA comes in many forms that reflect various policy agendas, and the appropriate design is dependent on various existing institutional and administrative traditions in different countries (Ladegaard, 2005: 7). Radaelli (2004) refers to RIA as 'a typical solution in search of its problem' as it is used for a variety of different purposes in different countries.

Ladegaard points out that the intention behind adopting RIA differs, which will lead to different approaches being adopted. In some countries it has been introduced to address the challenges of existing regulations, and for other purposes in other countries. For example RIA was adopted to address the administrative burden of existing regulation in Australia, Canada and the US and the emphasis was on welfare maximisation (Ladegaard, 2005: 7). This point is mirrored by Radaelli who stresses that the nature of the RIA approach will 'take on a specific meaning and 'speak' to the minds of policy-makers and public opinion in a language that is framed by the changing priorities of economic policy in time and space.' (Radaelli, 2004: 13-14)

According to Staroňová, Pavel and Krapež (2007: 272) RIA implementation sometimes faces problems because governments adopt RIA legislation to achieve legitimacy in international contexts rather than due to internal drivers and an understanding of its value. In such cases governments do not carefully examine the real opportunities of the RIA process because of their insufficient willingness to incorporate RIA into their existing policy making process. A further challenge raised by Radaelli (2004) is that the concept of best practice has sometimes been used without sufficient contextualisation so that models are adopted without sufficient recognition of the specific context that is necessary for them to be successful.

4.2. Methodological Challenges

Successful implementation of RIA, the OECD (2008a: 26) argues, is often constrained by lack of reliable data as well as appropriate indicators necessary to carry out RIA and facilitate the measurement of the regulatory impact. Further, there is often insufficient use of evaluation techniques, and the techniques that are used, such as CBA, are not always used well (OECD, 2009: 27).

The underlying principles of welfare economics, which is the basis of RIA, require an assessment of the impacts of a regulatory proposal to be carried out on all groups within society. However, the history of RIA implementation indicates that many stakeholders want RIA to focus exclusively on direct economic costs and benefits, excluding environmental as well as social costs and benefits (OECD, 2009: 32).

The OECD (2009: 32) also acknowledges that RIA can fail to capture all of the regulatory impacts that are relevant to policy decision-making, including impacts on employment, GDP and poverty. Accounting for such impacts is said to be problematic as it requires sophisticated economic modeling which is not always feasible given the scarcity of expertise and resources in most countries (OECD, 2009: 32), and particularly in developing countries.

Because of data and/or analytical limitations, the majority of RIAs fail to quantify all major costs and benefits in monetary terms (OECD, 2009: 73). At the same time, the analysis should not only focus on impacts that can be measured in monetary terms but on all factors that are valued by people which include environmental, social, distributional and other impacts (OECD, 2009: 73). However, successful quantification of the costs and benefits of regulation is a challenge due to the limited availability of quantitative data and the challenges of quantifying ephemeral factors. "Even those countries with the most extensive experience in implementing RIA acknowledge that the proportion of RIA that manage fully to quantify benefits and costs, and produce a robust net present value result, remains relatively small" (OECD, 2008b: 13). For example only 39% of RIA prepared by the EPA in the US reported a net benefit figure in the period 1996 to 1999 and only 29% of RIAs fully quantified costs in Australia in 2001 (OECD, 2009: 35)..

Because of data limitations, resource constraints and other factors, the goal of achieving a full quantification and monetisation of benefits and costs of regulatory options is said to be difficult in the majority of cases (OECD, 2008b: 14). This challenge is particularly acute in developing countries where access to reliable data is very limited. As a result of these problems, the feasibility and appropriateness of CBA as the standard methodology of RIA can be questioned. Despite this shortcoming, the use of CBA is argued to be consistent with the underlying principle of welfare economics (that the benefits of a particular policy proposal to society as a whole should exceed costs) and according to the OECD its adoption maximises RIA contribution to the policy making process. (OECD, 2008b: 14).

Finally, if not undertaken in the early stages of the decision-making process RIA can be seen as an obstacle to decision-making or legislative work in some administrations (Malyshev, 2008: 7).

4.3. Strong Political Support

One of the most significant impediments to an effective RIA system according to the OECD (2008a: 26) is indifference by the public administration, mainly because of inertia in the political environment. The OECD (2008a: 26) further argues that if politicians believe that RIA will weaken the decision making process, they will oppose it for fear of losing control over decision-making. Hence

there is need to make politicians understand that, by offering evidence based regulatory options, RIA supports and does not weaken the decision making process.

As Ladegaard (2005: 7) points out the “implementation of RIA systems is time consuming, controversial, and needs strong political support throughout the process”. Without effective training of state officials and strong political support, RIA is unlikely to be implemented effectively.

Radaelli (2004) explains how linking of RIA to wider regulatory reforms and key challenges can provide the necessary political support and profile to give momentum to RIA implementation. Experience in Europe suggests that, if not linked to broader reform initiatives, RIA may not be sustainable, as it requires long-term political support and impetus (Radaelli, 2004).

4.4. Failure to Quantify Distributional Impacts and to Compare Alternatives

In Europe, Echeverri-Carroll and Ayala (Undated: 24) argue that impact assessments rarely compare alternatives and “seldom estimate costs, almost never quantify costs to businesses, do not specify benefits, and virtually never compare costs and benefits”. As a result of this, the business community in Europe is said to collect its own data and conduct its own studies to see the effects of new regulations

Echeverri-Carroll and Ayala (Undated: 23) argue that the US regulatory analysis program’s priority has been on improving how to measure the efficiency of a regulation (costs and benefits of a new regulation to society), without giving priority to the distributional effects of new regulations. The distribution of the costs and benefits among different groups in society namely businesses, local and state governments, and consumers is not given priority although there is a requirement for investigation of specific impacts on small business. Even though this argument is valid, Echeverri-Carroll and Ayala (Undated: 23) acknowledge that evaluating distributional effects has not been at the centre of cost-benefit analyses, and that assessing the distributional effects of regulatory proposals is not an easy task. This, however, is a critical point for South Africa, where the issue of reducing, not increasing, the Gini co-efficient is paramount.

4.5. Pro-poor RIA

RIA is by no means a neutral or perfect tool. Indeed, it is argued by some that RIA can be an inadequate or even misleading guide to policy making because it largely ignores the distributional impacts of policy (OECD, 2009: 31). To make RIA pro-poor the OECD (2008a: 42) suggests that an analysis of the positive and negative effects of regulation on prices, job opportunities, access to credit, public service delivery and the SME environment should be incorporated. They suggest that this will enable an examination of how regulations assessed through RIA may contribute to assisting the poor and alleviating poverty.

Kirkpatrick, Parker and Zhang (2003: 14) argue that OECD “best practice” guidelines should not be taken as a complete template or model for transfer and adoption in countries with very different conditions and objectives: they should only serve as a guiding principle for developing a RIA

framework for developing and transition countries. The OECD 'best practice' guidelines need to be adjusted to "reflect the particular issues that arise when regulating in developing and transition countries, including issues to do with regulatory capacity, poverty reduction and development goals" Kirkpatrick, Parker and Zhang (2003: 14)

Ladegaard (2005: 9) argues that because developing countries put greater emphasis on sustainability and poverty reduction goals, they cannot base RIA implementation on the OECD guidelines, which are not transferable to developing countries because the main goal of development and regulatory policy in developing countries of reducing poverty is beyond the promotion of market efficiency which is the core goal in developed countries. RIAs can, however, be made pro-poor by placing an explicitly heavy weighting on poverty reduction and skewing the assessment in favour of regulatory changes that assist the poor (Ladegaard, 2005: 9; Kirkpatrick, Parker and Zhang, 2003: 14).

In the previous report in this project it was argued that, in the highly unequal social context in South Africa, it is critical to take what is described as a relative pro-poor approach to regulation, i.e. one that closes the gap between rich and poor by ensuring that the poor derive greater benefits from the regulatory approach than the wealthier elements of society. In this regard, pro-poor RIA would need to be able to ascertain to some extent the magnitude of the costs and benefits of particular regulatory actions on different income groups in the country, and to ensure, to the extent possible, that greater benefits and lesser costs accrue to the poor and the very poor in particular. Furthermore, in a country in which many of the poor are female-headed households and in which there is an explicit commitment to gender equality, it is important that RIA is able to disaggregate impacts on the basis of both class and gender.

4.6. Institutional Issues

Jacobs (1997: 22) argues that most RIA failures stem from the failure to understand that impact analysis does not only depend on producing the right numbers but on having deeper institutional and cultural changes required to make analysis genuinely a part of increasingly complex decision-making environments. According to Jacobs (1997: 22) "Two programme designs appear to be particularly ineffective: delegating full responsibility to regulators without adequate oversight sacrifices RIA to the narrower incentives and mission of the regulators, while, at the other extreme, placing responsibility for RIA in an independent body isolates the analysis from the decision-making process, and renders it an academic and impotent exercise". Jacobs further suggests institutional conditions which support successful implementation of RIA:

- ❖ political support at ministerial or parliamentary level;
- ❖ establishment of clear quality standards (such as cost-effectiveness or benefit-cost tests) for regulations that can be measured by RIA;
- ❖ selection of a methodology that is flexible and administratively feasible given available capacity and resources. In most cases, simplicity is more important than precision, even if only the order of magnitude of impacts can be reliably determined. In all cases, use of a few consistent analytical rules can greatly improve the quality of the analysis;

- ❖ development of an institutional structure for an RIA programme that charges regulators with primary responsibility for RIA, and places quality control with an independent oversight body empowered to establish quality standards for analysis;
- ❖ testing of assumptions through public consultation;
- ❖ integration of analysis into administrative and political decision processes, including communication of information in a coherent and systematic manner;
- ❖ development of a programme to build expertise and skills among regulators, including development of written government-wide guidance. Canada has, for example, shifted its focus from examining individual RIAs to providing training, communication and best-practice seminars for personnel involved in the analytical process.

If RIA is still new to a country, it is most likely that there will be insufficient institutional support and staff with appropriate skills which makes its implementation difficult. The ability of RIA to improve regulatory quality is reduced by limited knowledge and acceptance of RIA within public institutions as well as by civil society (OECD, 2008a: 25-26).

It is for this reason that the OECD (2007: 4) argues that if RIA is to be effective and not just a routine formality rather than an instrument for policy decision-making there is need for better training at national and local levels, and clear political support to promote a change in administrative culture.

Radaelli argues, interestingly, that RIA can either be subsumed into existing institutional arrangements, or, as in the case of the Netherlands, can be used to change institutional approaches; in this case to challenge 'the neo-corporatist policy style' (2004: 15). According to Radaelli, in the Netherlands 'the government gave RIA the task of seeking to break the cosy relationships between administration, unions and employers and to bring back in the policy process the wider perspective of the ordinary citizen, the small firms, and other stakeholders.' (2004: 15). From this he draws the conclusion that RIA can be used as a driver for institutional change.

Radaelli (2004) describes two institutional approaches to RIA implementation – the one being the creation of a separate RIA unit in government, the other being the incorporation of RIA practices into existing structures. However, the approach to be adopted should be informed by the administrative and cultural context in the specific country. The role of the central unit is generally to maintain quality control over the RIAs conducted by line departments.

A critical point raised by Radaelli (2004) is that learning processes are a fundamental part of impact assessment systems, and that, in adopting RIA, it is appropriate to learn by doing. This learning, however, is strongly influenced by the political context, and lessons should be tailored to meet the political imperatives of the country.

4.7. Failure to implement

One of the things that RIA does not appear to take into consideration and that is not dealt with in the literature on RIA is an assessment of the impact of the failure to implement regulation once the

regulatory requirements have been promulgated, either in legislation or as regulations. The implementation of the licensing requirements in South Africa is a case in point where significant negative impacts and costs have arisen out of the failure to implement the legislation rather than as a result of the implementation of the legislation. This is not the same as the 'do nothing' scenario as it sees the introduction of new legislation, with a subsequent implementation failure – a more common occurrence in developing countries than developed countries.

The table below identifies, in the two columns, some potential impacts arising from the effective implementation of the licensing requirements under the National Water Act (including issuing of licenses and enforcement of license conditions), and the potential impacts arising from the failure to implement the legislation. It is not within the scope of this study to quantify these impacts, but reference to the two columns raises a further challenge to RIA not identified in the literature – that it does not deal with impacts of the failure to implement proposed regulation. The impacts of such and likelihood of such failure may result in an alternative approach being considered more appropriate.

Area of costs and benefits	Costs and Benefits of Licensing of Water Use under the NWA	Costs and Benefits of Failure to Implement Water Use Licensing effectively under the National Water Act (including enforcement)
Administrative/ governance	Estimated moderate administrative costs to state;	Lack of respect for authority of DWA, contributing to increasing lack of respect for ability of government to govern effectively Business operating, illegally, without water use licence; Increased administrative costs in dealing with backlog as well as new applications
Economic	Costs to business of preparing licence applications, particularly small to medium business, can be high; Reliable supply of water to those authorised to use water for productive purposes;	Delay in establishment of businesses due to failure to obtain water use licence, and hence delay in creating jobs; Increased water treatment costs for public utilities, municipalities and industry Threat to continued export of fruit to Europe
Environmental	Water abstraction and discharge regulated to protect other water users and environment	Over-abstraction and increasing pollution
Social	Improved equity in access to water for productive purposes	Increased conflict over water use Poor users bear worst impacts of pollution, lowered water table and over-abstraction from rivers; Decreased health and productivity arising from polluted water resources

5. Key elements of an RIA framework for water resources regulation in South Africa

5.1. Introduction

This section provides some initial thinking on a framework for using RIA to improve water resources regulation in South Africa. It draws from the experience and frameworks developed by the OECD, the Irish government, the Canadian government, work done for the Department of Water Affairs under the Masibambane III programme, and the specific contextual needs of South Africa. In this regard, the approach has been tailored to take into account, in particular:

- The distributional impacts of regulation,
- The capacity constraints for the implementation of RIA and
- The capacity constraints for the implementation of regulation.

Define the problem

Define the problem and objectives and understand the policy context

The initial step is to understand clearly what problem is to be addressed and what the objectives of the proposed regulation are, as well as what the existing policy position is in relation to that particular issue. Without a clear policy position, regulation is likely to be contested and unlikely to be effective.

The following checklist provides a set of questions that can be addressed in defining the problem and understanding the policy context and in determining whether there is a **need** for government intervention.

Checklist
What is the problem that you are trying to solve and what are the objectives of the proposed government intervention?
Is there a need for government intervention? How significant are the impacts (how many people are impacted, and how severely, or how severely is the environment impacted)
What are you trying to achieve through the intervention?
What/who is causing the problem/issue? Who is carrying the costs/negative impacts of the problem?
Who are the key players and how are they involved in the situation?
What factors are influencing their actions?

Do the key players recognise that there is a problem? Do the key players recognise their role in the problem? Do they understand and accept government's objectives? Are they able to change their behaviour the way that government would like?

Are there any specific cultural, economic or social issues that need to be addressed in terms of their impact on different groups in society?

(adapted from Developing Regulations: The Basic Steps and the Plain Language Approach
 Department of Justice and Treasury Board Ministère de la Justice et Conseil du Trésor Canada March 1998)

Identify alternatives

There are often other means, other than command and control regulation, which will equally achieve the required objectives, possibly with less costs to and demands on limited government resources and on those to be regulated. It is, therefore, important to examine whether regulation is the best option for addressing the problem, and if so, what kind of regulation.

At this stage, therefore, it is important to identify possible alternative mechanisms for achieving the intended objectives, such as voluntary agreements, education and awareness campaigns, and so on. Better enforcement of existing regulations might also be an option to consider.

The various alternatives, including the proposed regulation, should be clearly described at this point.

The description of the proposed regulation should include the date on which the regulation will expire and timeframes for review of the impact and ongoing relevance of the regulation.

The description should also include reference to any replacement of existing legislation by the proposed regulation.

Clarify legal basis for action

It is important to clarify whether the legal mandate exists for the proposed action and what the extent of that legal mandate is. A regulation must be based on a section of an Act. The Act states "what" can be done and a regulation "how" it is to be implemented. Without having an empowering provision, a regulation cannot be made on that aspect and would be *ultra vires* (unlawful) and could be set aside. A regulation must be constitutional, based on a section of the Act, and within the powers of the Minister.

Identify affected parties

The various groups that will be affected by the proposed regulation should be identified. This will include those to be regulated, those who will benefit directly or indirectly from the regulation, and government players who may be affected by or involved in the regulatory activity. The nature of their relationship to the regulatory process should be identified. It is important to identify poor and marginalised groups in particular that might be affected by the regulation to ensure that the distributional impacts of the regulation can be properly assessed during the following phase. It may

also be important to differentiate stakeholders by gender to identify whether there are gender specific costs and benefits, and whether, for example, poor women will bear undue costs.

Determine scale of impact of proposed regulation

Depending on the scale of impact, the nature of the RIA to be conducted will differ. The following table, adapted from the Mexican example, suggests some ways in which the level of impact can be categorised in the South African context and what the implications might be for the level of quantification.

Level of impact	Characteristics of costs	Level of quantification required
Low	Total annual costs to government do not exceed R10 million. Negligible impact on employment and business productivity	No quantification required. Qualitative description of costs and benefits
Medium	Annual costs between R10 and R50 million. Non-negligible impact on employment and productivity. Significant impacts on poor communities or SMMEs Affects some economic sectors but effects are neither substantial nor generalised.	Quantification of costs and benefits suited to quantification. Qualitative description of the rest. Specific analysis of the impacts on poor communities and SMMEs
High	Annual costs greater than R50 million. Generalised impact on multiple sectors of the economy, employment and business productivity. Substantial impact on a particular sector, industry or region.	Complete quantification of all costs and benefits.

Assess Costs and Benefits

Describe/quantify costs and benefits to different groups

Clearly outline, either qualitatively or quantitatively depending on the results of the previous step, the costs and benefits **for each identified stakeholder group**, under the headings:

- Administrative
- Economic
- Social
- Environmental and
- Enforcement and compliance.

This should be done for **each of the various alternative approaches** identified so that they can be compared against each other.

Identify simplified procedures applicable to particular groups

At this stage it is also important to identify any simplified procedures for particular social or economic sectors in order to reduce the regulatory burden on them, such as small businesses. Due to the nature of the South African economy, it is also important to identify any contributions that the various options will make to the transformation challenges of the country. In the context of water resources regulation, the use of general authorizations is precisely one such approach.

Compare costs and benefits of alternatives

A comparison of the relative costs and benefits of the various alternatives should be conducted to assess the alternative that is likely to provide the best results with the lowest costs across the range of stakeholders. In order to ensure that the regulation is pro-poor, at this point extra attention or weighting should be given to costs to poor communities or groups so that the selected alternative is one that has low costs to or negative impacts on poor communities, both directly or indirectly.

List and compare trade-offs

Once one of the key elements of an RIA is to enable decision-makers to clearly understand the trade-offs involved in particular choices. Once the various costs and benefits to particular groups have been assessed, these should be analysed to give a clear picture to the decision-makers of the relative trade-offs of the various options assessed.

Consult

It is important to consult the stakeholders identified earlier, including those to be regulated, those that may be affected by the regulation, and relevant government stakeholders. For example, when looking at water resources regulation, it may be important to check what the Department of Environmental Affairs is doing, as well as SABS, Department of Trade and Industry, Department of Mining, Department of Agriculture, and National Treasury, over and above water users, interest groups and affected communities.

Consultation with key stakeholders from an early stage will allow informed identification of alternatives to regulation and informed assessment of costs and benefits. Care must be taken, however, not to let one group of stakeholders dominate and drive the RIA in a manner that serves the interests of one particular group. Consultation should take place in all three phases of the proposed RIA approach.

6. Conclusion

As mentioned previously, Radaelli stresses that the nature of the RIA approach will 'take on a specific meaning and 'speak' to the minds of policy-makers and public opinion in a language that is framed by the changing priorities of economic policy in time and space.' (Radaelli, 2004: 13-14). The National Water Policy and the National Water Act, within the context of broader government policy, set the current socio-economic policy priorities. The Constitution, ultimately, sets the foundation for

this with the recognition of the right “to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that

- i. prevent pollution and ecological degradation;
- ii. promote conservation; and
- iii. secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development “ (Constitution of South Africa, 1996: s24)

Thus, RIA, if it is to be applied in the South African water sector, will need to take into account the Constitutional imperatives, as well as the imperatives of national social and economic policy. Poverty eradication and the creation of jobs is a key element of such policy. While RIA has a history of primarily serving the interests of business, in the South African context the nature of RIA would need to be shifted to address the transformation challenges of the country, in terms of race, gender and class transformation.

Equally, however, any application of RIA should be done with a clear understanding of its limitations and constraints. The application of RIA does not, of necessity, lead to better regulation. Although RIA is argued to have delivered gains in countries where it has been implemented, its influence on regulatory-decision-making is said to be still marginal in most countries (Jacobs, 1997: 21).

Carroll (2010: 121-22) argues that the answer to the question “*Does RIA lead to better policy?*”, is no . . . and yes. ‘No’, in that there are a number of insuperable obstacles, notably the limitations of the positivist approach that underlies RIAs, combined with the need for compromise in political systems, compromises that cannot be costed by techniques such as cost-benefit analysis. ‘Yes’, in that there are elements of any decision-making process that can be improved, with existing RIA often highlighting a variety of weaknesses upon which remedial attention can be focused, if there is the political will to do so”.

Currently, however, there is a lack of capacity in government in general, and in the Department of Water Affairs in particular, to conduct full RIAs. For effective RIAs to be conducted on water resources regulation, there will need to be an investment in capacity building and training for water sector officials to be able to manage and implement RIAs and to conduct both quantitative and qualitative assessments. Despite this, it is worth noting that some of the elements of RIA are already fairly widely in place in the development of regulations in South Africa, most particularly around the issue of public consultation, which is a well-developed ethos in the South African government, although implemented in very different ways and degrees by different departments (SBP, 2005)

Radaelli notes, however, that what is most important in the implementation of RIA is that it is done in a context of ‘bounded rationality, learning by doing, administrative adaptation, and evolution.’ (Radaelli, 2004: 22). Within such an approach, and through developing an approach that is appropriate to the resource constraints of the water sector, and the specific challenges of the water sector, it is argued that the application of RIA could add significantly to the improvement of water resources regulation in South Africa.

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The aims of the project were to:

- Conduct a comprehensive literature review of both international literature and selected national legislation and policy in terms of how IWRM has been conceived and applied
- Develop indicators for assessing how IWRM will impact on the lives of women and the poor and apply these indicators to South African case studies
- Build research capacity locally and internationally on approaches to implement and monitor IWRM.

The project was conducted in two phases; the first phase focused on the compilation of a literature review in terms of IWRM in a broader context, and the second phase focused on developing criteria for proposed indicators used in assessing the impacts of IWRM and testing these against a case study.

PHASE 1 Literature Review

The first point of departure was to define IWRM in terms of its conceptual basis and as a 'tool'. The next step was to conduct a legal review of how the National Water Act and other relevant legislation and policy support the IWRM principles. IWRM embodies a broad plethora of requirements, topics, actions, impacts and ideals. In the South African context, the key topics, such as water allocation, groundwater potential, gender aspects and land reform, are summarised.

The literature review also contextualised Mitchell's (2006) Canadian IWRM experience, the findings of which could be ideal for the South African situation, and explored the Shah and Van Koppen (2006) review of India for lessons when setting expectations of IWRM in the South Africa context.

The second phase of the project focused on identifying criteria for the development of proposed indicators for evaluating the impact of IWRM on the lives of women and the poor in South Africa. Before deciding on the methodology to be used to develop the criteria for these indicators, it was important to identify the function and aim of the indicators, and this is discussed in the last section of the literature review.

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