

## The quest to be real, relevant and impactful: Analysing the science-policy divide in the South African water sector

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### POLICYMAKING IN THE SOUTH AFRICAN WATER SECTOR

The South African water sector faces challenges that need to be addressed through effective policy development and implementation. Sound evidence, based on researched consideration of issues and solutions, is an important input to policy development and implementation. This realisation has led to a policymaking discourse known as evidence-based policymaking (EBPM), which aims to align science and policy to generate responses that are relevant, real and impactful to the multiple challenges, needs and issues facing society today<sup>1</sup>.

Traditionally, EBPM has constructed policy development as follows<sup>2</sup>:

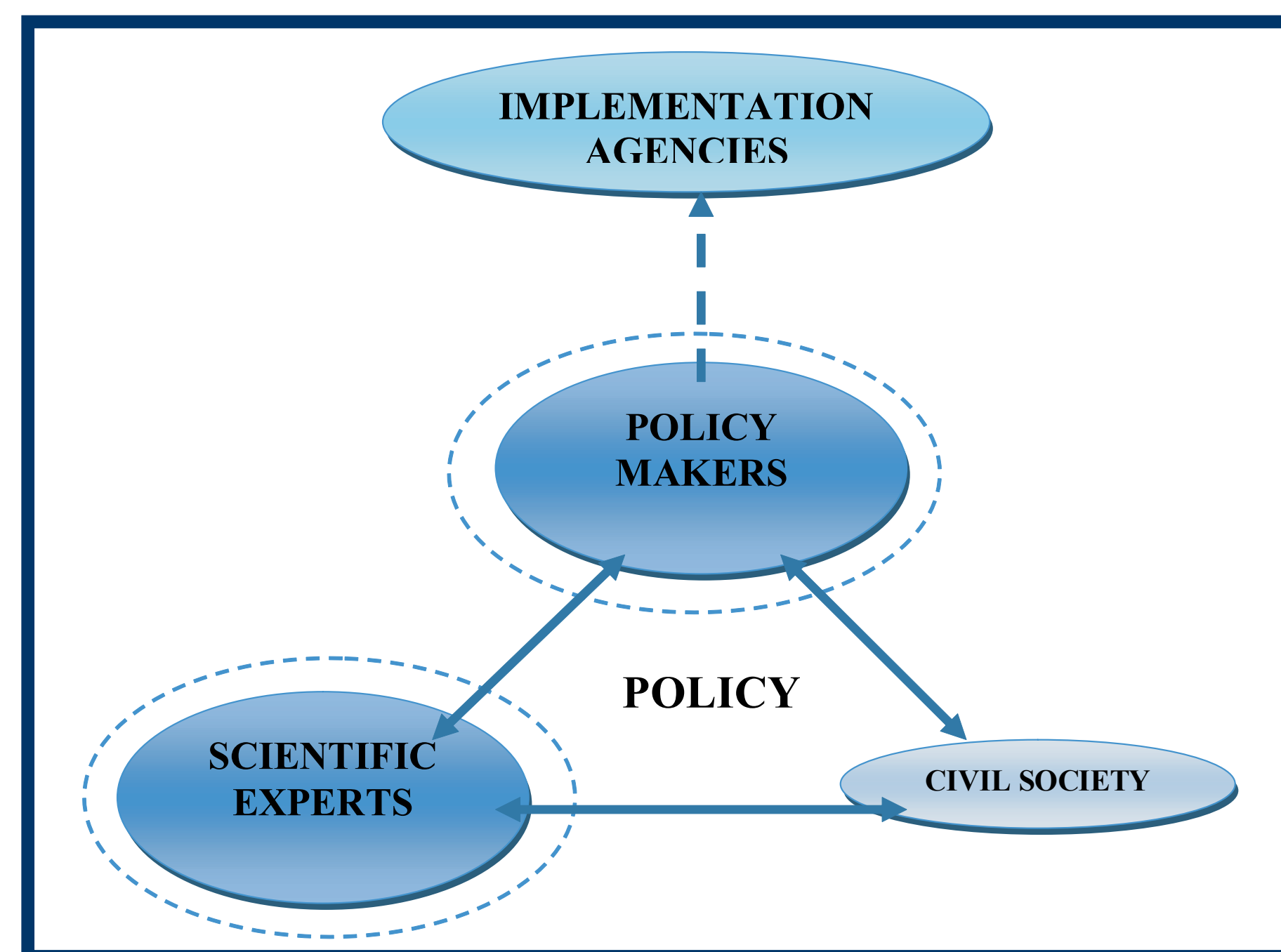


Diagram 1: Policy is the result of interaction between three groups of actors. Official policy makers formulate policy, with the support of inputs from civil society and scientific experts. Once formulated, this policy is handed over to implementation agencies (which serve official policymakers) to be implemented<sup>2</sup>.

### THE PROBLEM WITH EVIDENCE-BASED POLICYMAKING

Despite the obvious value of incorporating robust evidence into policy, and over a decade of research about EBPM, there is an ongoing lack of scientific evidence being utilised in policymaking processes<sup>2,3,4</sup>. This situation is problematic because:

- Policy suffers by having insufficient research to support it; and
- Scientists suffer as they lack the personal fulfilment of 'making a difference' in their work. It also becomes harder to prove to funding agencies and policymakers that their work makes enough of an impact to merit further funding.

### RESPONDING TO THIS PROBLEM

Our research suggests that inadequate evidence uptake into policy occurs due to simplification and misconstruction of the complex environment in which evidence input into policy takes place and plays out<sup>2</sup>. To remedy this, it is necessary to have a more detailed and holistic understanding of the multiple actors, linkages and power relations in the policy process<sup>2</sup>.

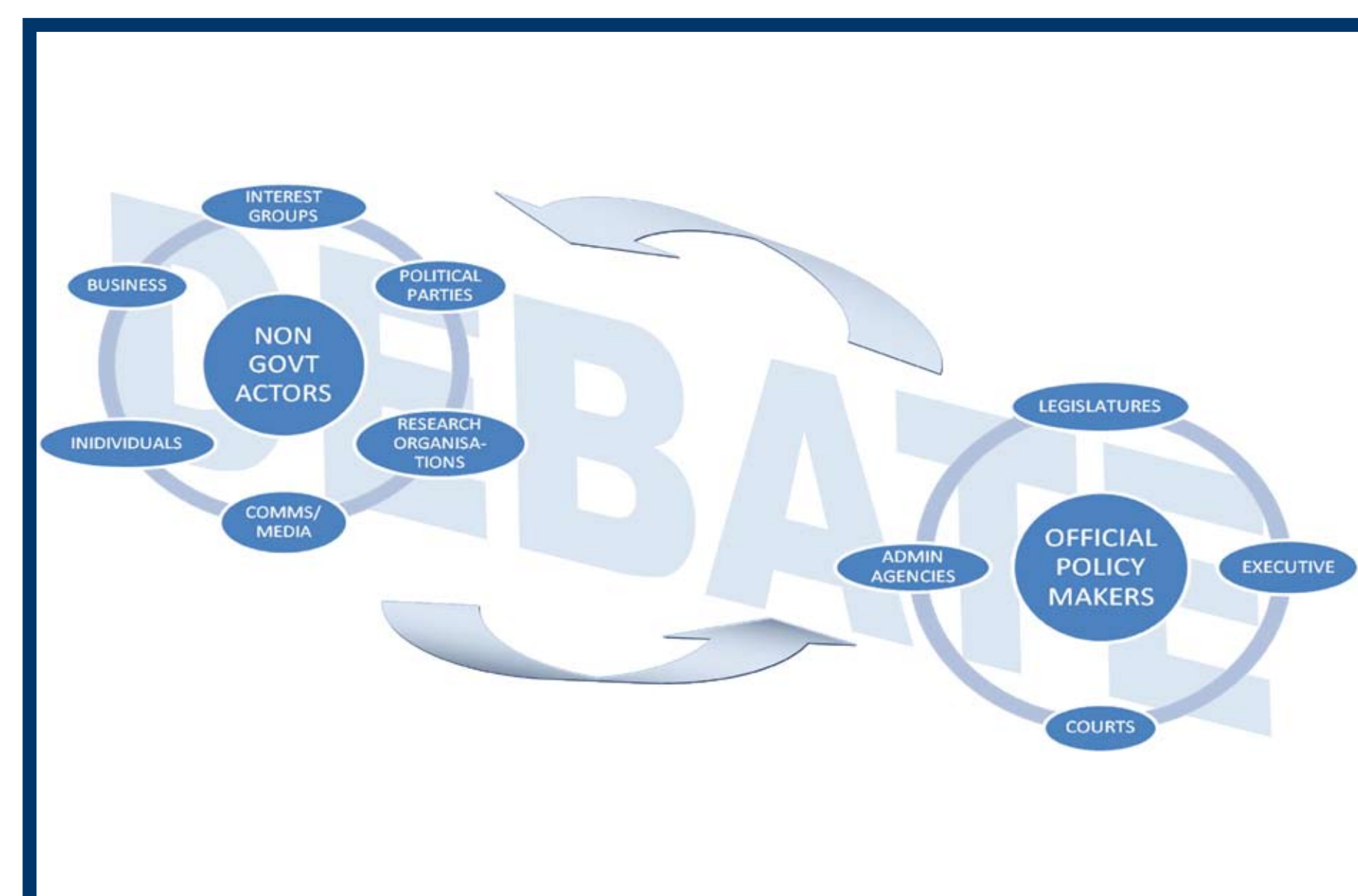


Diagram 2: This diagram challenges the traditional EBPM policymaking construction by suggesting that there are not three, but two complex groups of actors who formulate policy: official policymakers and civil society/non-government actors<sup>2</sup>

What are the implications of this recommended reconstruction of how to interpret policymaking? Research no longer holds a privileged position in the policymaking process. It is recognised to be part of (rather than distinct from) the many civil society inputs into policy. Those actors interested in water policy issues all have differing amounts of power and ability to influence and thus have to compete and collaborate to 'be heard'<sup>2</sup>.

### APPLYING THE COMPLEX POLICYMAKING MODEL TO THE DEVELOPMENT AND IMPLEMENTATION OF THE NATIONAL WATER POLICY

The policy development process is considered as having been very successful as a large number of stakeholders, legal practitioners, environmental scientists and politicians agreed on a set of world-class, highly-progressive water principles to accommodate environmental protection and socioeconomic development priorities<sup>5</sup>.

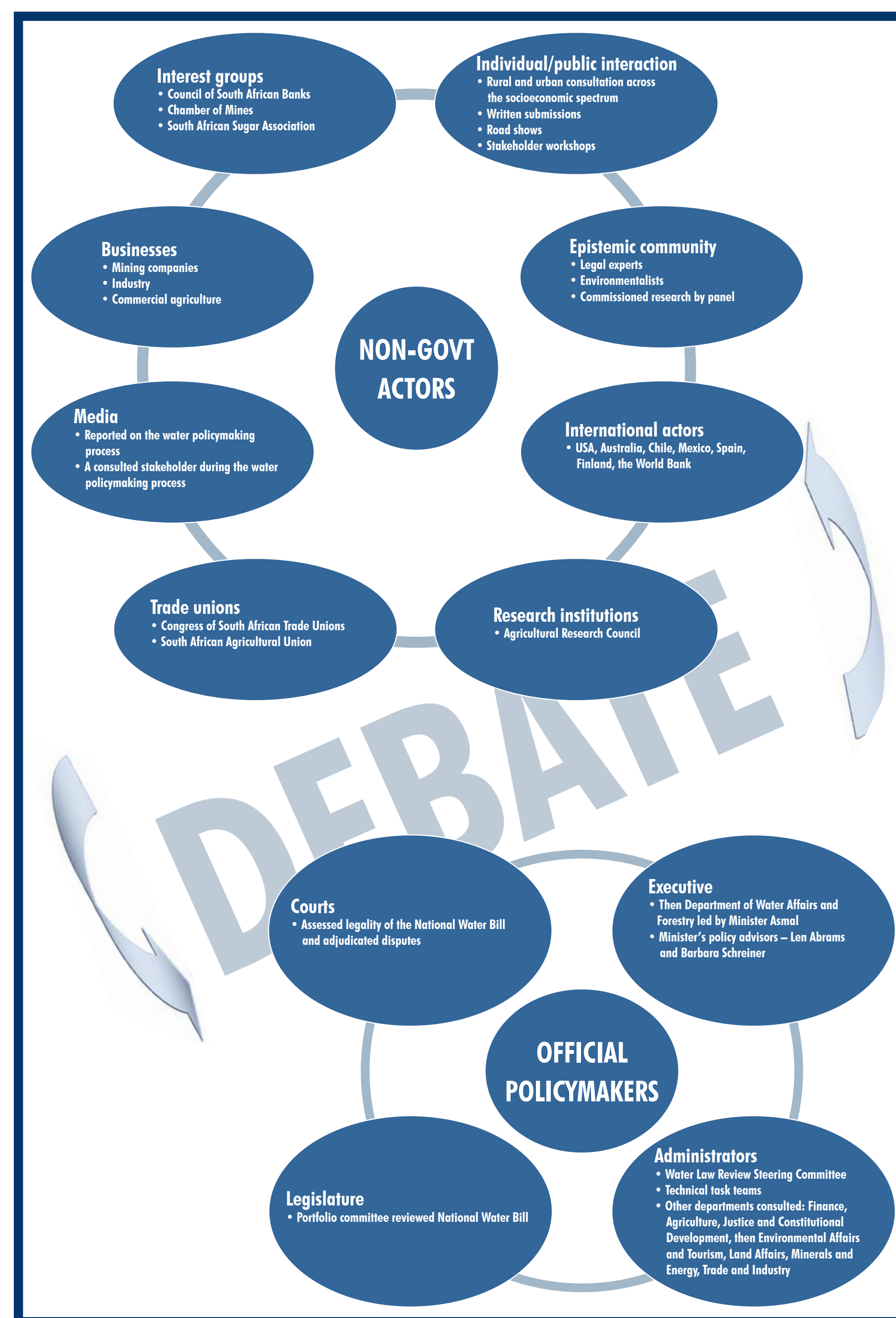


Diagram 3: The complex spectrum of actors involved with and competing to be heard in the production of the South African National Water Policy

### IMPLEMENTATION CHALLENGES FACING NATIONAL WATER POLICY

Despite the fact that the water policy developed in South Africa is considered to be world class, a number of challenges to implementation remain<sup>6</sup>. These also have implications for scientists trying to influence policy implementation.

Institutional weaknesses – Department of Water and Affairs (DWA)	Lack of inter-sectoral coordination	Lack of stakeholder participation
<ul style="list-style-type: none"> <li>• High rate of staff turnover results in an overstressed government departments.</li> <li>• Loss of staff members means that existing knowledge is not being transferred to new recruits.</li> </ul>	<ul style="list-style-type: none"> <li>• Even though water- and land-use are undeniably linked to each other, they are administered under different legislation and fall under different line departments.</li> <li>• DWA has very little control over land-use activities (including planning) except for certain aspects of mining and solid waste disposal<sup>6</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>• No strong culture of participation in South African government processes exists and where stakeholders do participate, some have considerably more power than others<sup>7</sup>.</li> </ul>
<b>Result:</b>	<b>Result:</b>	<b>Result:</b>
This negatively impacts on the department's ability to implement water policy mechanisms such as water licensing.	This fragmentation results in a lack of holistic planning and management when it comes to land-use activities (such as agriculture, mining, construction) that impact on water quality and quantity. The effects are serious environmental problems such as acid mine drainage and eutrophication.	This may be one of the reasons why the catchment management agencies, which are based on the principle of stakeholder participation, are for the most part not yet functioning actively. Once they start functioning, whose interests will they be dominated by?
<b>Implications for scientists:</b>		
<ul style="list-style-type: none"> <li>• Scientists can find it very frustrating to engage with a government department that is not functioning effectively. A problem also exists with relationship building and knowledge transfer because of the high staff turnover rate.</li> <li>• It is difficult for scientists to communicate research findings aimed at addressing cross-cutting problems of land- and water-use to policymakers from different sectors if the different sectors do not cooperate with each other.</li> <li>• Scientists will find it difficult to influence policy in a situation where many actors are competing to make their voices heard and get their interests onto the agenda<sup>8</sup>.</li> </ul>		

### RECOMMENDATIONS FOR FUTURE PROGRESS

- Building relationships and networks with actors in the policymaking arena is critical to achieving impact<sup>2</sup>. Only by building alliances can research interests hope to tip delicate balances of power in their favour.
- Scientists must recognise that it does not necessarily hold a more privileged position than any other actor in civil society. It is not isolated from others in the policymaking process<sup>11</sup>.
- Building relationships, networks and trust to bridge the science-policy divide is a time-consuming process. Research organisations need to create space and career incentives for scientists to pursue this task<sup>9</sup>.
- Stakeholder engagements, integration and networking needs to be included in research from its planning phases in order to foster commitment, understanding, cooperation and trust<sup>9</sup>.
- Scientists and other civil society actors need to work at deepening their understanding of the complexity of the policymaking arena and process<sup>2,9</sup>.

Scientists need to commit and plan for their work to be of relevance and impact in the policymaking arena by targeting policy briefs, grassroots reform programmes and implementation agencies. They need to be entrepreneurial about getting their work "heard".



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