

## **Appendix C**

### Final List of Indicators Developed at project Workshop 9<sup>th</sup> March 2004

Note: This has been modified (via further consultation) for inclusion in the final report. For summary table of final list of indicators, see page 39 of main report.

Theme	Performance Area	Code	Indicator	Purpose/type of indicator	Status	Source of Information	Frequency of Reporting	Reporting – who should provide information (eg. Local authority/province)	Report – to whom? (which national department and/or province)
Climate/Air	Air Quality	AQ1	Is there an adopted Air Quality Management Plan in accordance with the AQ Act?	Compliance	Core when ACT is promulgated. Pragmatic		Annually	Local	Province & DEAT
		AQ2a	% of licensed industries which did not comply with licence conditions	Output	Core when ACT is promulgated. Pragmatic		Quarterly / Annually		DEAT
		AQ2b	% of these for which there was enforcement action by the authority	Output					
		AQ3	% of key pollutants <sup>1</sup> (as identified for the local area) monitored according to the specification in the National Air Quality Framework	Output	Core P				Province & DEAT
		AQ4	Ambient concentrations of key pollutants	Outcome	Core; Not yet pragmatic for small munics				Province & DEAT
		AQ5	Degree of exceedence of national standards for ambient concentrations of key pollutants (standards in preparation)	Outcome	Core; Not yet pragmatic for small munics				Province & DEAT
		AQ6a	No. of air pollution related complaints received by local authorities (complaints/year)		Core and pragmatic. Good proxy		Quarterly, Annually, Monthly		
		AQ6b	% of these for which there was enforcement action	Output			basis for data measurement		

<sup>1</sup> Key Pollutants – likely to include: SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, O<sub>3</sub> and Pb – but may also include others

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	Climate change/greenhouse gases	?	<i>Q. Should an indicator be included for greenhouse gas emissions – or other indicators of climate change and its impact on municipalities/provinces?</i>		Core issue to municipalities, but not core for them to measure, nor pragmatic, Ideal				
Noise Pollution		NP1a NP1b	Number of noise pollution related complaints received by the local authority % of complaints for which there was enforcement action	Output	Peripheral				
Waste and Waste Management	Waste Generation	WG1	General Waste produced/capita /year	SOE	Core & Pragmatic	Municipal solid waste	Annual	Local	
		WG2	Hazardous waste produced/sector/year	SOE	Core & Pragmatic	Municipal solid waste	Annual	Local	
	Waste Services	WS1	% households eligible for kerbside refuse removal which receive this service on a weekly basis	Output	Core & Pragmatic				DPLG
	Waste Reduction/Management	WRM1a WRM1b	Number of incidents of illegal dumping. Percentage of incidents that enforcement action was taken.	Output	Core & Pragmatic		Annual	Local	
		WRM2	Amount (tonnes) of illegal dumping cleared by local authority	Output	Core & Pragmatic		Annual	Local	
		WRM3	Recycling: % of general waste recycled on annual basis	Output	C & P		Annual	Local;	DWAF/DEAT
			Landfill Sites:	Compliance	C & P		Annual	Local	DWAF/DEAT

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		WRM4	% of municipal landfill sites licensed according to the terms of the ECAct.						
		WRM5	Available landfill lifespan	Output	C & P		Annual	Local	DWAF/DEAT
		WRM6	% of licensed landfill sites that are being monitored for compliance (according to specification in the license)	Compliance	C&P	province		Province & DWAF & some munics (JHB)	
Storm water Management		SWM1	% of storm water drains that are maintained annually	Output	Peripheral				DWAF?
Water and Sanitation	Provision of Services	WS1	% households with access to potable water within 200m of dwelling (or on site)	Output	Core & Peripheral				DWAF
		WS2	% of households with at least a VIP	Output	Core & Peripheral				DWAF
		WS3	Number of reported cases of Cholera	Outcome	Core & Peripheral	Health dept	Annual	Local	Health & DEAT
Water Quality	Ground water	WQ1	% exceedance of DWAF guidelines for selected groundwater quality variables (total nitrogen, total phosphorus, conductivity and faecal coliforms)		Core Pragmatic	DWAF Water Utility	Annual	Local	DWAF DEAT
	Surface Water	WQ1	% exceedance of DWAF guidelines for selected surface water quality variables (total nitrogen, total phosphorus, conductivity and faecal coliforms)		Core Pragmatic	DWAF	Annual	Local	DWAF DEAT
Municipal Parks and Recreation		POS1a	Area (hectares) of municipal parks, recreation area or other open spaces within the	Output	Core & Pragmatic	Local Planning &/or parks department	> annual	Local	Province DEAT

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Areas		POS1b	municipal area with conservation value % of this area infilled by development on an annual basis.						
		POS2	% of dwellings which fall with a 2Km from a municipal park or recreation area	Output	Peripheral. Need to agree on the standard distance to measure against	Planning Dept	Annually	Local	Province DEAT
		POS3	Area (hectares) of municipal parks, recreation areas or open spaces per capita within the municipal area	Output	Peripheral	P			
		POS4	Level of community satisfaction with access to and quality of municipal parks and recreation areas	Outcome	Peripheral Ideal	Survey	Annual	Local	Province DEAT
		POS5	% of municipal budget allocated to provision and maintenance of municipal parks & rec areas	Input	Peripheral Pragmatic	Planning	Annual	Local	Province DEAT
Biodiversity and protected areas	Protected Areas	PA1	Area (ha) of municipal area under local protected area status	Output	Core Pragmatic	Planning and Parks Dept	Annual	Local	Province DEAT

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		PA2	% of municipal area under local protected area status (related to the area of recognised conservation importance in the municipal area)	Output	Core Pragmatic	Planning and Parks Depts	Annual	Local	Province DEAT
		PA3	% of land of 'conservation importance' in the municipal area under local protected area status	Output	Core Pragmatic	Planning & Parks Depts	Annual	Local	Province DEAT
		PA3b							
		PA4	% of local protected areas with a current/adopted management plan and associated authorised budget	Output	Core Pragmatic	Planning and Parks Department	Annual	Local	Province DEAT
		PA5	Level of <b>user</b> satisfaction with access to and quality of local protected areas	Outcome	Peripheral Ideal	Survey	>annual	Local	Province DEAT
	Invasive Alien Species	IAS1a	Area (hectares) of municipal land currently invaded by alien species	Output	Core Pragmatic	Working for Water Local Planning/ Parks Depts	Annual	Local	Province DEAT
		IAS1b	% of municipal land currently invaded by alien species						
		IAS2a	Area (hectares) of invasive alien species cleared from municipal land	Output	Core Pragmatic	Working for Water (WfW) & Local Gov	Annual	Province (should do the reporting)	Province/DEAT/ DWAF and NDA
		IAS2b	% of municipal land currently invaded by alien species which has been cleared						

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		IAS3	Is there a current adopted Invasive Species Monitoring Control and Eradication Plan that is integrated and aligned to the IDP?	Compliance	Core Pragmatic	Planning Department	? 5 yearly	Local	Province DEAT
	Species and Ecosystem Management and Change	SEMC1	Threatened and extinct species per taxonomic group	SOE	Core Pragmatic	Province	5 yearly	Province	DEAT
		SEMC2	Endemic species per taxonomic group	SOE	Core Pragmatic	Province	5 yearly	Province	DEAT
		SEMC3	Population trends of selected species	SOE	Core Pragmatic	Province	5 yearly	Province	DEAT
		SEMC4a	Area (ha) of sensitive, vulnerable, highly dynamic and stressed ecosystems in the planning area – by ecosystem type (eg. Wetland, dunes etc)	SOE	Core Pragmatic	Province	5 yearly	Province	DEAT
		SEMC4b	% of each of above which is degraded or transformed on annual basis	SOE	Core Pragmatic/Ideal?	Province	5 yearly	Province	DEAT
Environmental Governance	NEMA principles <b>Parked – need some sort of performance measure for this...but this is not sufficient</b>	NEMA1	Has the municipality audited its plans, policies and programmes for adherence to NEMA principles and compliance with provincial EIP?						
	Environmental Planning	EP1	Has a strategic environmental assessment of the impact of the Spatial Development Framework for the municipality been carried out?	Compliance Y/N	?				

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			Need additional indicators of indices for measurement of performance of municipalities in environmental planning – and for quality of planning processes and plans.						
		EP2	For each of the following – is there a current, adopted plan that is integrated and aligned to the IDP? <ul style="list-style-type: none"> <li>- Air quality plan</li> <li>- Integrated Waste Management Plan</li> <li>- Oil Spill Contingency Plan</li> <li>- Water Services Development Plan</li> <li>- Plan to provide access to basic water services</li> <li>- Invasive Species Monitoring, Control and Eradication Plan</li> </ul>	Compliance	Core Pragmatic	Local Planning Dept	Annual	EIP report (IDP Review Panel – province)	Province; EIP report – to DEAT Also report back to municipalities
		EP3	Is the IDP aligned to the National Biodiversity Strategy and the Bioregional Plan (if one exists)	Compliance	Core Pragmatic	Planning Department	On submission of IDP	Assessment also by IDP review panel? Check.	Province DEAT
	Environmental Impact Assessment	EIA1	? Suggest an indicator for provincial performance in duties to approve EIAs – and for municipal role ?						
			Parked issue: EIAs are provincial responsibility but						

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			some felt that there should be indicators to measure performance of municipalities against their responsibilities. No indicator chosen at this stage						
	Agenda 21	A1	Has the municipality adopted Agenda 21?	Compliance	Core Pragmatic	Local Government – planning department?	?	Local	DEAT
		A2	Is there an authorised implementation plan for Agenda 21?	Compliance	Core Pragmatic	Local Government Planning Dept	?	Local	Province DEAT
	Environmental Reporting	ER1	Does the municipality or province produce a State of Environment Report?	Compliance	Core Pragmatic	Environment Departments	5 yearly	Local	Province DEAT
	Environmental Education and Awareness Raising	EEed1	What is the budgetary allocation (%) for environmental education and awareness raising per capita	Input	Core Pragmatic	Environmental Department	Annual	Local	Province DEAT