

WATER RESOURCES ACCOUNTING IN NAMIBIA

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PRESENTATION STRUCTURE

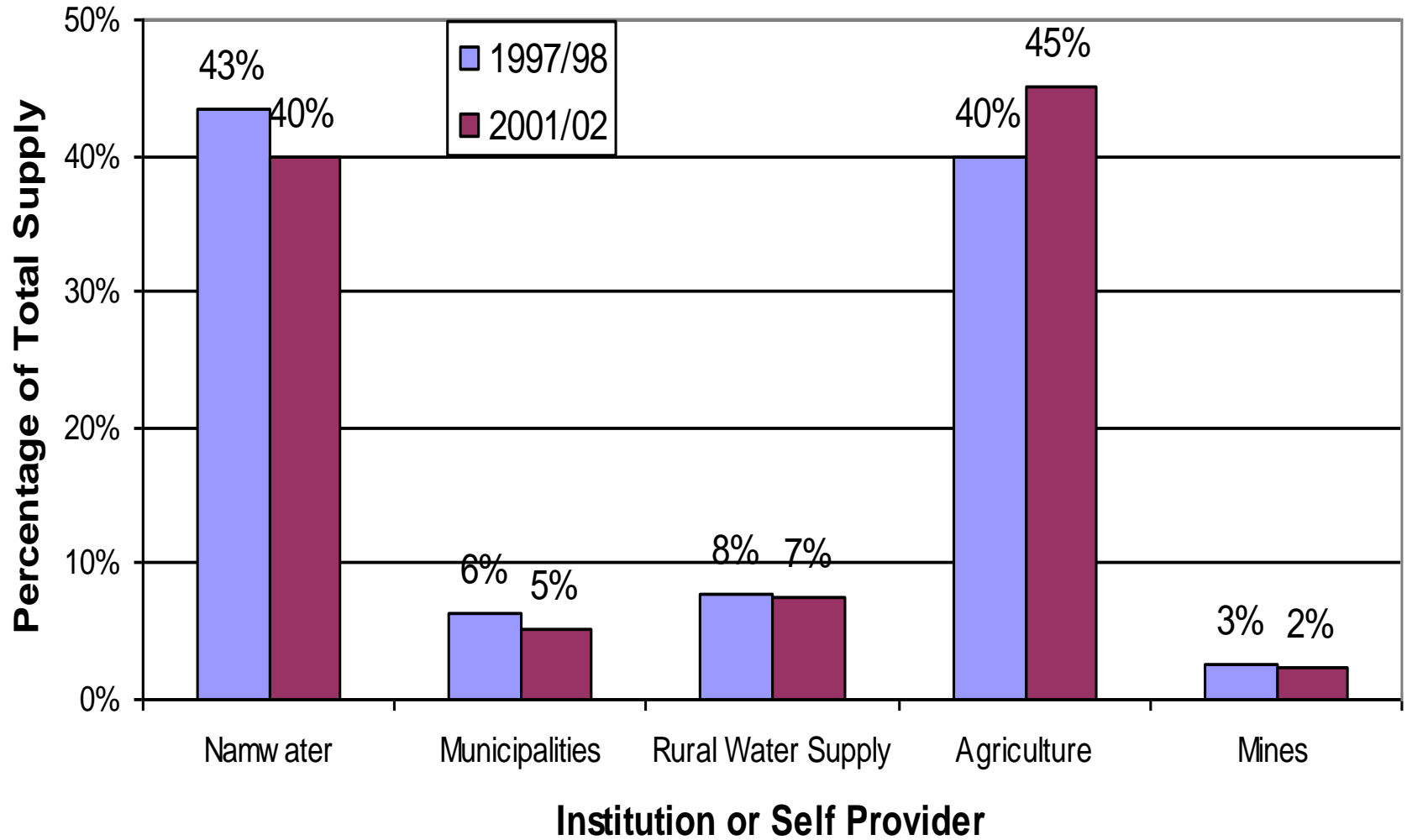
- Water Sources, Abstraction & Distribution
- Water Use Value Added & Employment
- Affordability & Subsidies
- Outstanding Debt to Service Providers
- Recommendations
- Water Policies and acts
- Challenges

WATER SOURCES & ABSTRACTION (2001/2002)

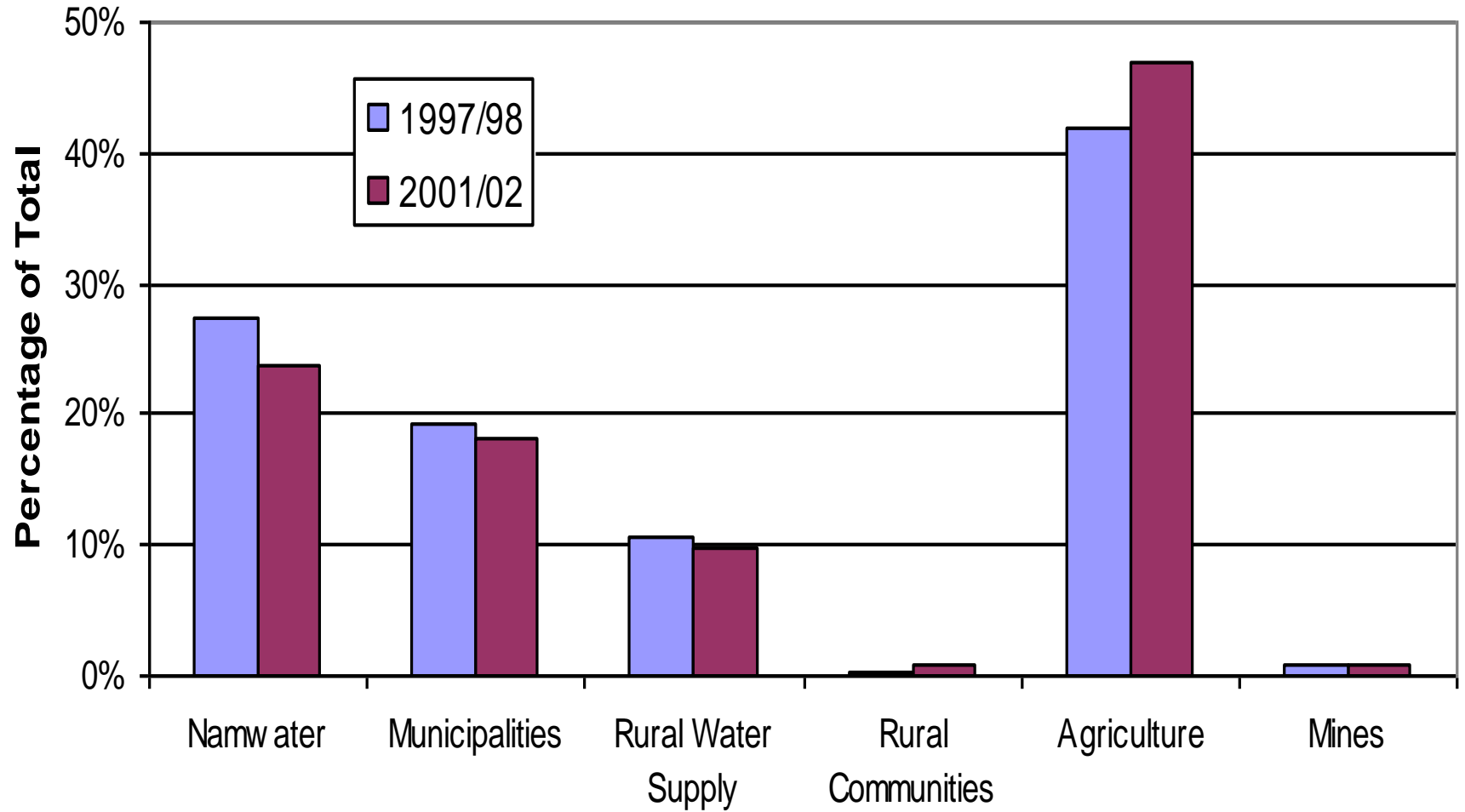
Source	Mobilised	Abstraction
• Ephemeral Dam	100 Mm ³	98.7 Mm ³
• Groundwater	150 Mm ³	123 Mm ³
• Perennial	170 Mm ³	102.6 Mm ³
• Reclamation	7.5 Mm ³	1.3 Mm ³
Total	422.5 Mm ³	326 Mm ³

- Losses included above 44.5 Mm³ (13.5%)

WATER ABSTRACTION (2001/2002)



WATER DISTRIBUTION (2001/2002)



Distribution by Suppliers, Institutions and Self Providers

HOW DID WE USE OUR WATER

(2001/2002)

Sector	% Water	% Employ	GDP/% (N\$/mil)	Value (N\$/m ³)
Agric Tot	72%	24% ?	918 (6)	4.54
Commer Agri	47%	7%	623(4)	4.61
Comcl Irrig	Incl Above	Incl Above	59	0.55
Comcl Stock	Incl Above	Incl Above	485 (3)	18.44
Commun Agri	25%	17%	296 (2)	4.41
Subs Irrigat	Incl Above	Incl Above	-17	-0.49
Subs Stock	Incl Above	Incl Above	313(2)	9.92

HOW DID WE USE OUR WATER

(2001/2002)

Sector	% Water	% Employ	GDP/% (N\$/mil)	Value (N\$/m ³)
Fishing	<1%	2%	649 (4)	939
Mining	4%	1%	1162 (7)	127
Diamond	Incl Above	Incl Above	838(5)	891
Mining oth.	Incl Above	Incl Above	324(2)	40
Manufact.	3%	5%	1697(11)	261
Food proc.	Incl Above	Incl Above	1133(7)	314
Other Man.	Incl Above	Incl Above	566(4)	194
Textile	Incl Above	Incl Above	20	153

HOW DID WE USE OUR WATER

(2001/2002)

Sector	% Water	% Employ	GDP/% (N\$/mil)	Value (N\$/m ³)
Utilities	< 1%	7%	229 ⁽¹⁾	998
Construct.	< 1%	Incl Above	510 ⁽³⁾	1850
Serv. Total	3%	45%	4373 ⁽²⁶⁾	551
Trade	1%	13%	1513 ⁽⁹⁾	776
Hotels etc	Incl Above	Incl Above	298 ⁽²⁾	165
Transport	-	4%	753 ⁽⁵⁾	1772
Communicat.	-	Incl Above	477 ⁽³⁾	7816
Fin/Business	-	11%	1198 ⁽⁷⁾	1681
Social	1%	17%	134 ⁽¹⁾	45

HOW DID WE USE OUR WATER

(2001/2002)

Economic Sector	GDP/% (N\$/mil)	Value (N\$/m ³)
Government (6%)	3313 (21%)	234
All water uses	15720	57.23
All uses excluding Agriculture	14802 (94%)	203.76

MONTHLY TOTAL ACCOUNTS

(Only for Water and Sewer 2004/2005)

Cons (m ³ /month)	WHK (N\$/month)	REHO (N\$/month)	TSUM (N\$/month)
3	66.27	21.46	85.96
6	80.52	47.92	87.80
9	104.25	74.38	97.70
12	127.98	96.85	107.60
15	151.71	127.30	117.50
20	199.05	206.40	141.65

SUBSIDIES IN THE WATER SECTOR (2001/2002)

- Rural Water Supply
- NamWater Surplus on RWS (N\$ 5 mil/a) & Local Authorities N\$ 37.3 Mil/a)
- To mining (N\$ 11 mil) other End users (N\$17 mil)
- Windhoek Surplus on Households (N\$ 15 mil)
- To Low income HH, Social Services, Wet Industry & Government

OUTSTANDING SERVICE DEBT

- NamWater N\$ 70 million +
- Local Authorities N\$ 400 million +

RECOMMENDATIONS

1 Guidelines for Service Providers for:

- Allocation of costs
- Cross-subsidising or National Subsidies
- Setting of tariffs
- Credit Control

2 Guidelines for Service Providers to:

- Provide key operational information
- Abstraction
- Revenue collection & outstanding debt
- Water losses and non-revenue water
- Information on sustainable uses of the resources

RECOMMENDATIONS

3 Guidelines for Self Providers to:

- Provide key operational information
- Abstraction
- Water losses
- Cost to provide own water
- Other performance indicators (Pollution etc)

4 Guidelines for Aqua Culture (excl. marine) to:

- Provide key operational information
- Water use and losses
- Cost to provide own water
- Water Pollution
- Reuse/recycling of water after ponds

RECOMMENDATIONS

5 Provide Guidelines to Irrigation Sector (53% of Water use)

- Increase water use efficiency
- Increase water productivity by increasing the contribution to the GDP

6 Water Demand Management Initiative

- Identify initiatives with high financial returns
- Report losses and non-revenue water
- Infrastructure Leakage Indexes
- Irrigation systems in use

RECOMMENDATIONS

7 Use National Resource Account as Monitor to:

- Provide Annual Statistical Information on Agriculture (Irrigation), Urban (23%) and Mining
- Update full accounts every 5 years to serve as input to the NDP's

Water Policies and Acts

- Water Policy White paper of 2000
- Water Supply and Sanitation Sector Policy of 1993 (WASP)
- Water Supply and Sanitation Sector Policy of 2008 (WSASP)
- SA Water Act number 56 of 1954
- Water Resources Management Act of 2004
- Proposed Water Resources Management Act of 2011
- IWRM Plan for Namibia 2010

Challenges

- Scarcity of Water
- Data Collection Challenge
- National Economic Accounts not Disaggregated according to some Sectors and Regions
- Lack of Cooperation from Water Suppliers
- Shortage of Staff and Lack of Skilled Personnel in compiling Water Accounts