

# *Seven Sins against Local Water Management*

- I. Poor Incentives for Water Service Performance*
- II. Insufficient Cost Transparency*
- III. Neglected Demand Management*
- IV. Consultants Instead of Water Service Providers*
- V. Weak Local Water Business Development*
- VI. No Impact of Investment Finance on O&M*
- VII. Political Influence on Executive Operations*

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WATER AS A GLOBAL RESOURCE

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# Seven Sins against Local Water Management

## Seven Starting Points to Secure Water Services and Stop Sunk Investments

### PROLOGUE

The title of this 2-pager may sound provocative. However, it is necessary to address failures in local water management and name the sins which may cause the loss of lives and wealth. It is the poor people and ecosystems in emerging markets and developing countries (often of global value) which are suffering the most from malfunctioning water and environmental services. In the donor-dominated markets, most of the donor agencies are obliged to make sure that good water governance is made effective as a precondition of donor support. Therefore, international development cooperation should encourage and enable public water utilities to overcome often serious mistakes against local water management.

Seven duly researched, selected and verified topics of outstanding importance related to mistakes are listed below with brief comments *why* the topic needs to be addressed and *how* to deal with it. If not – as, unfortunately, found in too many cases worldwide – the seven topics must be named what they are: *Seven serious, not seldom fatal sins against local water management*. If addressed and properly mitigated, the seven topics can be considered as seven success factors and starting points to secure water service performance and prevent sunk investments (which finally are on the bill of the local, the national and multinational taxpayers, tariff payers, citizens).



Photo IEEM, 2008



Photo IEEM, 2019

The photos above are from WWTPs in Africa, with operational default (left) and with operational success (right), managed under different governance conditions. Many of such experiences were the motivation to research and digest the lessons learned about effective and non-effective governance, and elaborate this 7-sins thesis paper.

**Note:** This thesis paper is the layman version of the full thesis paper, available in English and German, basing on a full report describing the scientific background and empirical research. Extensive discussions with experts from the academic world, namely from the research program GRoW ( <https://bmbf-grow.de/en>), from international development agencies and the water industry have taken place. Still, it must be emphasized that the responsibility for this paper lies with the authors and the GroW-project IWaGSS ( [www.iwagss.com](http://www.iwagss.com)). Furthermore, it shall be mentioned that this thesis paper does not necessarily reflect the experiences, expertise and views from donor agencies or macro-governance focused research and others. One reason is that this paper was elaborated based on interviews with water utility leaders responsible for local water management in many regions worldwide, including (but not exclusively) African as well as other developing countries and several industrialized countries. Readers who want to know more are invited to ask for more information or raise questions to [mail@uni-wh-ieem.de](mailto:mail@uni-wh-ieem.de).

# **Seven Sins against Local Water Management**

## **Seven Starting Points to Secure Water Services and Stop Sunk Investments**

### **I. Poor Incentives For Water Service Performance**

*WHY?* Without incentivising the ones responsible for water management on the local level, it is unlikely that water facilities are well-functioning. Public services are seldom structured to pay different salaries for different work performance. Neglected staff and equipment for O&M (operation and maintenance) is a major bottleneck of success in service performance and often the first expenditure which treasurers cut in times of financial difficulties.

*Unless all team members are angels, water utilities need financial incentives to motivate its productive people.*

*HOW?* The **introduction of penalties and rewards** (monetary and others) among the different staff levels is important. This might also help to reduce the current difficulties in attracting and keeping motivated qualified personnel. For PPP-contracts with private service operators performance-based incentives are quite common and can serve as a good role-model for municipal decision-makers to be considered.

### **II. Insufficient Cost Transparency**

*WHY?* Without knowledge about real costs, no city council or utility leader can take rational decisions, be it about alternative technologies, different managerial options, tariff strategies or water business planning, in general. Currently, too many decisions are made in an information vacuum, navigating without transparent financial data.

*As airplanes need geographic navigation, water utilities cannot work without financial navigation.*

*HOW?* **Establish financial modelling**, as far as possible, focused on the needs of local water utilities and adapted to the structure of the utilities' bookkeeping with common tables and lists.

### **III. Neglected Demand Management**

*WHY?* "Day Zero" is a famous label which did raise awareness during the latest drought in Cape Town. To raise awareness is inevitable but of little value without reliable commitment. Low, subsidized tariffs, flat-rate tariffs, poor collection rates, legal barriers to cut or limit water supply can ruin all efforts for reasonable water demand management and finally the quality of water services.

*Without water demand management it is unlikely that water is saved & used, instead of being wasted & lost.*

*HOW?* **Realize water demand management** targeted as one element of water efficiency, in combination with water loss reduction programs addressing physical losses (leakages) as well as administrative losses (water theft, unbilled or unpaid water consumption). Digitized water metering, leakage and pressure control is much easier than it was in the past. A lot of progress has been achieved, but much more is needed, still.

### **IV. Employment of Consultants Instead of Liable Water Service Providers**

*WHY?* Consultants can be of great help for water utilities. Independent advice without conflicts of interest to select between competing technologies or services shall come from independent consultants, not from companies selling this. To purchase water technologies or operational services is a different issue than to seek for advice. Contractual compliance with water standards can be delivered by liable providers of goods and services.

*If you pay per hours & papers, you will get hours & papers. If you pay for m<sup>3</sup> serviced, you will get m<sup>3</sup> serviced.*

*HOW?* In most developing countries and emerging markets, there are very often very many consultants involved. Use consultants, municipal twinning, water operator partnerships and others to train local staff, to prepare procurement and to supervise liable providers of goods and services. But **do not substitute liable technology and service providers with consultants** paid per hour without output based liability, even if others pay the bill.

## V. **Weak Local Water Business Development**

*WHY?* Water and environmental services support the development of the local economy significantly. Local contracting will enhance political acceptance and willingness to charge respectively to pay for good water and sanitation services, in line with the SDG targets (Social Development Goals of the UN as adopted by many countries, like Germany).

*“Jobs per drops” with local contractors can improve political acceptance.*

*HOW?* **Lean design tender docs** with work packages designed in a way that certain lots become attractive for local entrepreneurs, in terms of risk share and obligations (request skills which are available in the local provider market). For ambitious works, make sure that international technology and service providers are not chased away but incentivized to partner with local companies in a way that the local market can develop further.

## VI. **No Impact of Investment Finance on O&M**

*WHY?* For good reason, donor banks are risk-protected under state guarantees and the umbrella of their governmental shareholder(s). Commercial banks are bearing financial risks and suffer if their borrower does not generate revenues for debt repayment as planned. Therefore, commercial banks are committed to make things work, from design and construction to operation and water services. Subsidized investment finance without risk on side of the lending banks is a fertile ground for insufficient O&M and sunk investments in the water sector.

*Subsidies are like drugs: Live saving if you need them, but drugs can kill if side-effects are neglected for too long.*

*HOW?* **Blended finance**, or (how the authors would prefer to say) **hybrid finance** with a certain component of private risk finance contributed by commercial banks can be a reasonable solution, provided the technical risks of project development and execution are not socialized generating hidden risk guarantees to the disadvantage of taxpayers respectively water consumers. Wherever possible, lenders should prefer loans from financing institutions with a commercial component and collect competing offers from various, different banks.

## VII. **Political Influence on Executive Operations**

### – *the “Mother Of Sins” in Water Management*

*WHY?* Public entities and municipal water utilities are under political governance. This is justified for political decision-making and supervision, but not for the operational execution of what has been decided. However, and far too often in certain countries, water utilities are misused for self-catering. Execution fails without executives empowered to act according to managerial, technical, entrepreneurial needs disregarding political interferences.

*Water utilities cannot perform without protection against political interferences in day-to-day business.*

*HOW?* **Ring-fenced utilities** (not necessarily established as autonomous legal entities, but committed to act as a commercial company (with the council as shareholders, the utility leader as CEO) can be a good way to make sure that the different political and executive roles and players are clearly defined and strictly separated. Ring-fencing could be protected under binding contracts as pre-condition of donations under international law.

## EPILOGUE

Just as German Chancellor Dr. Angela Merkel upholds the list of "Seven Social Sins" written by Mahatma Gandhi in 1925 which was presented to her by Prime Minister Narendra Modi during her 2020 mission to India, the authors hope that many Water Scientists and Water Leaders will help to eradicate the Seven Sins against local water management.



The "Agenda 2030 for Sustainable Development" of the German Ministry for Economic Cooperation and Development includes a general prerequisite: That development aid shall not be granted unless certain reforms are safely implemented in the receiving country. This pre-requisite corresponds to the spirit of the Seven Sins list:

The Seven Sins list provides a concrete set of criteria from the scientific community made for the water sector with recommendations that could be implemented in practice to achieve success with social, ecological and economic added value quite soon.

To eradicate the Seven Sins would not necessarily require additional money, but could, avoid sunk investments which are found too often in the water sector of developing and sometimes of other countries as well. What is required is good and stable will on the side of all important parties involved. In the short term the eradication of water sins may not serve the self-interest of certain institutions and individuals.

There is need for reforms not only in the developing countries but also in the donor countries with the development agencies and multilateral institutions to support good water governance with good local water management for the benefit of all.

**Note:** This paper was elaborated under the research programme **GROW**, related to the GROW cross-cutting topic No. 1 "*Incentives in The Context Of Governance*". The research programme "*GROW – Water as a Global Resource*", funded by the German Ministry of Education and Research, is one of the largest contemporary research initiatives on global water resources. GROW comprises 12 international cooperation projects with 90 partner institutions from Germany and more than 40 case studies worldwide, involving approximately 300 researchers, practitioners and stakeholders over a period of more than 3 years. GROW has investigated innovative approaches for better understanding, predicting and addressing the local-to-global teleconnections in water resources management. The approaches span from high-resolution global models of water use efficiency and agriculture via new operational rules for water reservoirs to water footprint tools, water quality assessments and, last not least, new tools for water governance. For more details, please visit: (<https://bmbf-grow.de/en>) .