



Environmental regulation & meeting social objectives in the water sector

Foundation course in utility regulation in Africa

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Outline

- Environmental regulation
 - Objectives
 - Mechanisms
 - Challenges
- Social regulation
 - as above



Environmental regulation

■ Objective

Protect water bodies (rivers, lakes, groundwater, seas) by

- Regulating quantity of abstraction from
(Flow regimes or minimum flows)
- Quality of discharge into water body
(impact on riverine, estuarine and marine environment)

Abstraction

This is a water resource regulation issue

- Mechanism a function of water rights regime
 - Riparian rights (land-linked);
 - Prior appropriation (first in use)
 - Administered (Permits / Licences)
 - Tradable rights (not linked to land)
 - Combination of above
- Challenges
 - Control of groundwater and small scale surface abstractions – ability to regulate
 - Administrative burden of administered licensing systems
 - Managing third party impact in trading systems

Discharge

This is a water resource regulation issue
(but has direct impact of treatment
investment requirements)

■ Mechanisms

- Standards based (effluent quality)
- Receiving environment based (river quality)
- Administered (Permits / Licences)
- Tradable rights to pollute (uncommon)

■ Challenges

- Setting appropriate standards
 - Should not be a uniform standard
- Effective monitoring
 - Capacity
- Effective enforcement
 - Especially where polluter is a public utility or local government
- Political feasibility of trade in pollution permits

Social objectives – public health

- Universal access to a minimum basic service
 - “universal service obligation”
- Promoting at least a minimum use (50 lcd)
 - addressing affordability issues
- Safe drinking water
- Safe disposal of human waste & practicing safe sanitation
 - sanitation facility; toilet use & hand washing

Key points for debate:

Should social objectives & government obligations extend beyond this?

(If yes, in what circumstances?)

Access

■ Subsidised private connections

– Qualify in terms of

- Service levels (self-selecting) preferred
- Area-based poor targeting
- Indigent policy qualification selection costly

– Financed by:

- Connection fund (levy on tariff) useful for PPPs
- Cross-subsidy (hidden) not transparent
- Government subsidy okay

Quantity of use

Subsidising use comes with an inherent risk of "middle class" subsidy capture

■ Mechanisms

- Rising block tariffs with free or low cost initial block Popular but targeting poor
- Credits on water account with constant preferred volumetric tariffs
- General credit to household selection costly

■ Financed from:

- Government subsidy, or
- Cross-subsidy

But access objective should always have priority over this objective

Potable water quality

- Standards (appropriate to context)
- Effective monitoring (self-reporting with audits)
- Effective enforcement

Helped by:

- Professional management
- Economies of scale

Key challenge: credible regulatory regime with teeth

Safe disposal of human waste & safe sanitation practices

- Standards a small part of solution
- Access to facilities necessary (high cost)
- Household education very important

Helped by:

- Good extension programmes
- Promoting demand for sanitation
- Making available affordable choices

Key challenges

- creating/increasing household demand
- prioritising backlog over upgrades to high service level



Thank you

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