



SMART ENFORCEMENT AND COMPLIANCE IN FSM

Strategies to achieve health and
environmental outcomes

Joanne Chong, Janina Murta, Antoinette Kome, Prof Juliet Willetts

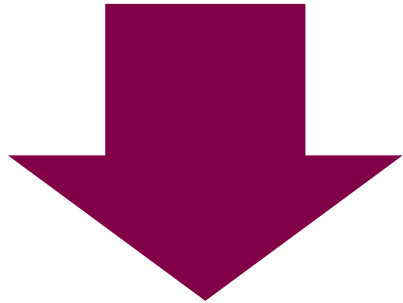


KEY MESSAGES

- Setting **regulations and standards** for safe management of faecal sludge and liquid effluent is critical, however **ensuring their enforcement** and compliance is difficult
- Current approaches have **limitations**, and may be **considered late** when planning FSM solutions
- There are **many approaches to enforcement and regulation** which could be drawn upon
- Using these approaches through **combinations of instruments** holds promise to be **'smarter'** in our approach to achieving health and environmental outcomes



CURRENT APPROACHES TO REGULATION, ENFORCEMENT AND COMPLIANCE MEET MANY CHALLENGES...



Limited institutional capacities for enforcement or limited legitimacy, politicians unwilling to pay the price of enforcing rules on individuals, public versus individual benefits etc.

How to develop cost-effective, 'smart' strategies?

Current efforts: command-control regulation, awareness raising and market-based incentives



METHODS

Review regulatory and enforcement approaches used within and beyond the urban sanitation sector

Semi-structured interviews to develop examples and case studies that illustrate key regulatory concepts and potential for 'smart' approaches to enforcement and compliance

Sector engagement through online D-group, Learning event, and Stockholm World Water Week Workshop in 2016

Develop a learning paper to stimulate debate and further thinking in the sector (to be released shortly)

This presentation covers some key strategies that could support a 'smarter' approach to enforcement and compliance

REGULATORY CONCEPTS AND APPROACHES

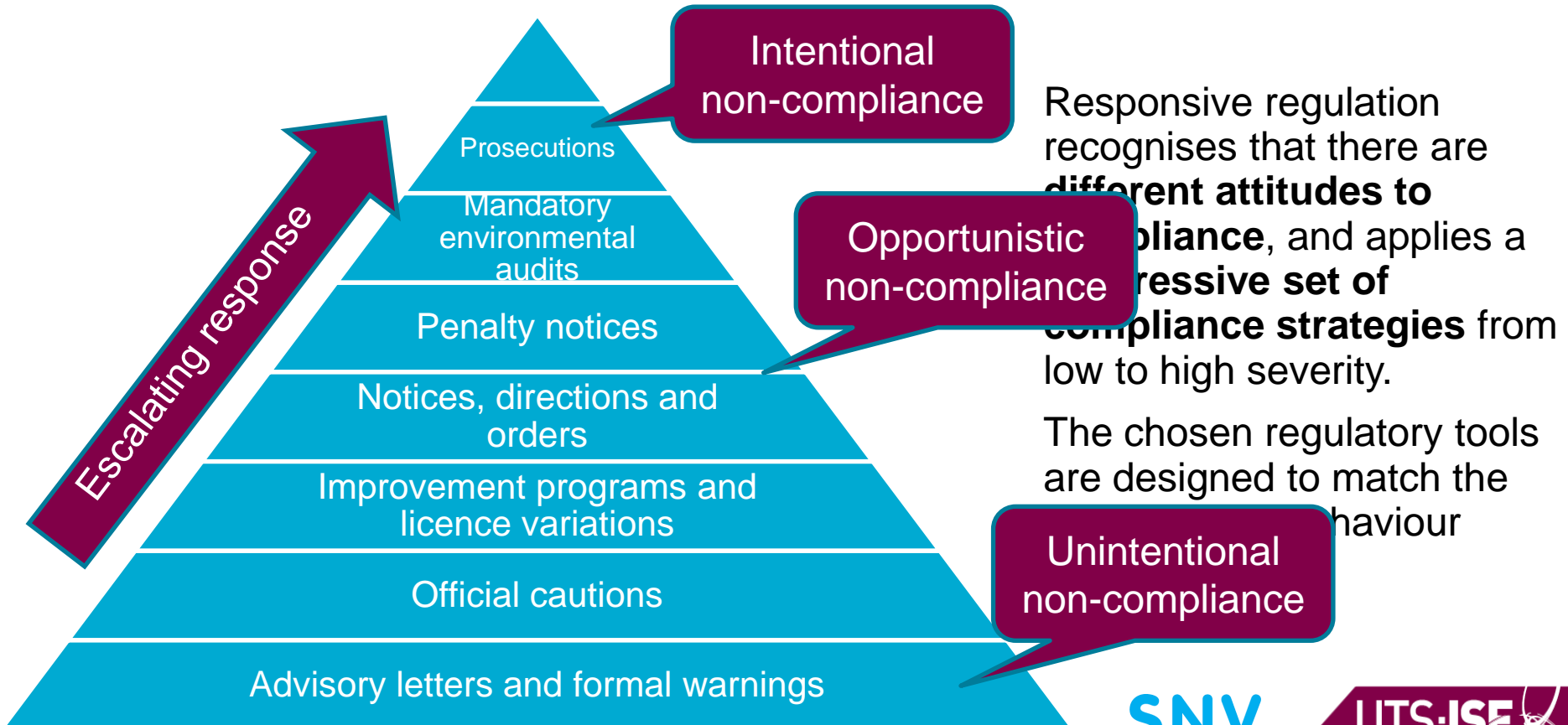
These include:

1. Responsive regulation
2. Identifying and leveraging compliance motivations
3. Networked regulation
4. Risk-based regulation

Combining instruments:

voluntary; command and control regulation; self-regulation; and market-based instruments

RESPONSIVE REGULATORY APPROACH



APPLICATION OF A RESPONSIVE REGULATORY APPROACH

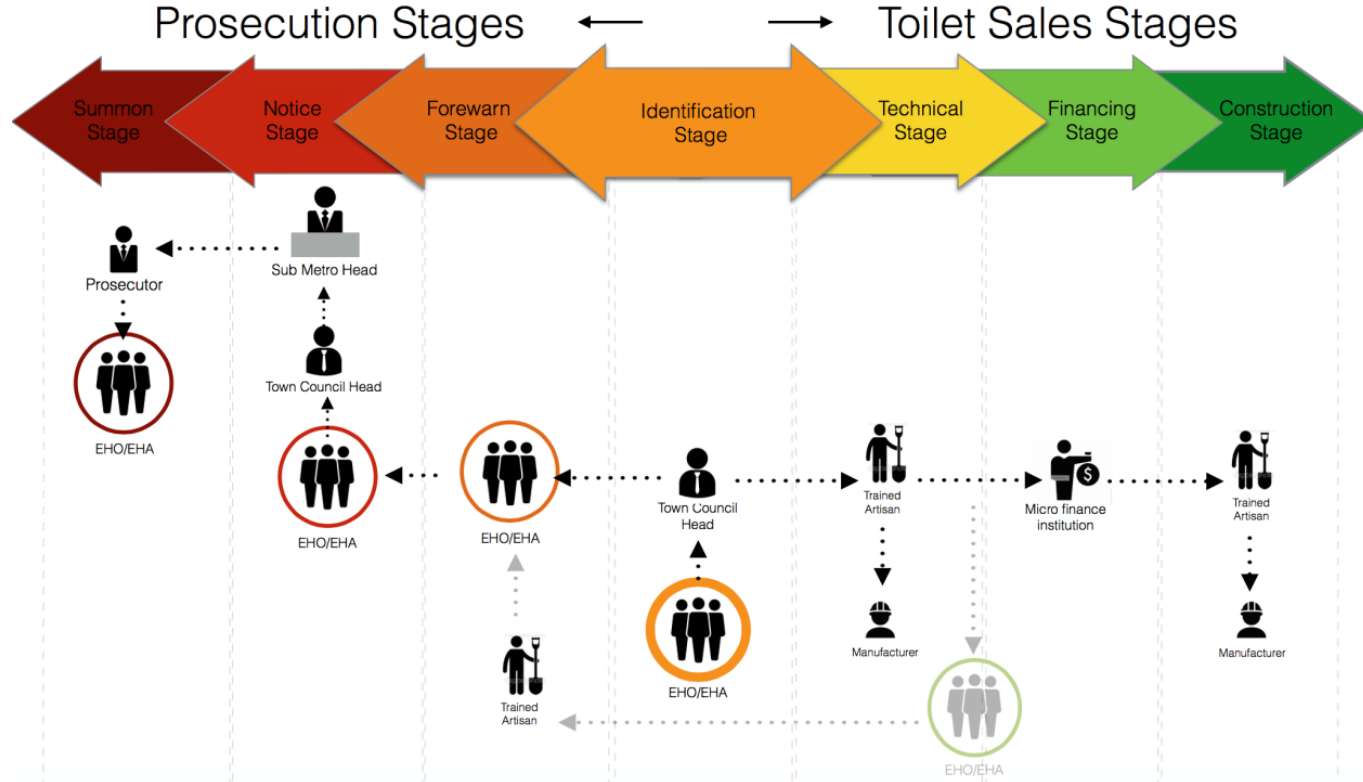
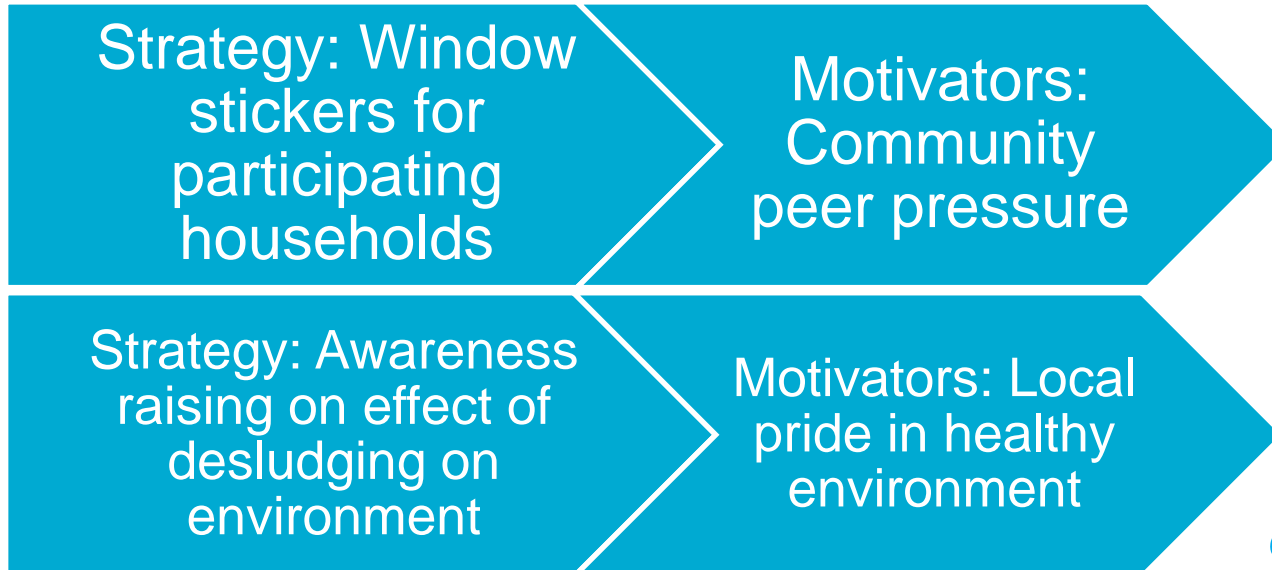


DIAGRAM OF ENFORCEMENT MANAGEMENT MODEL IN KUMASI (SOURCE: WSUP 2016)

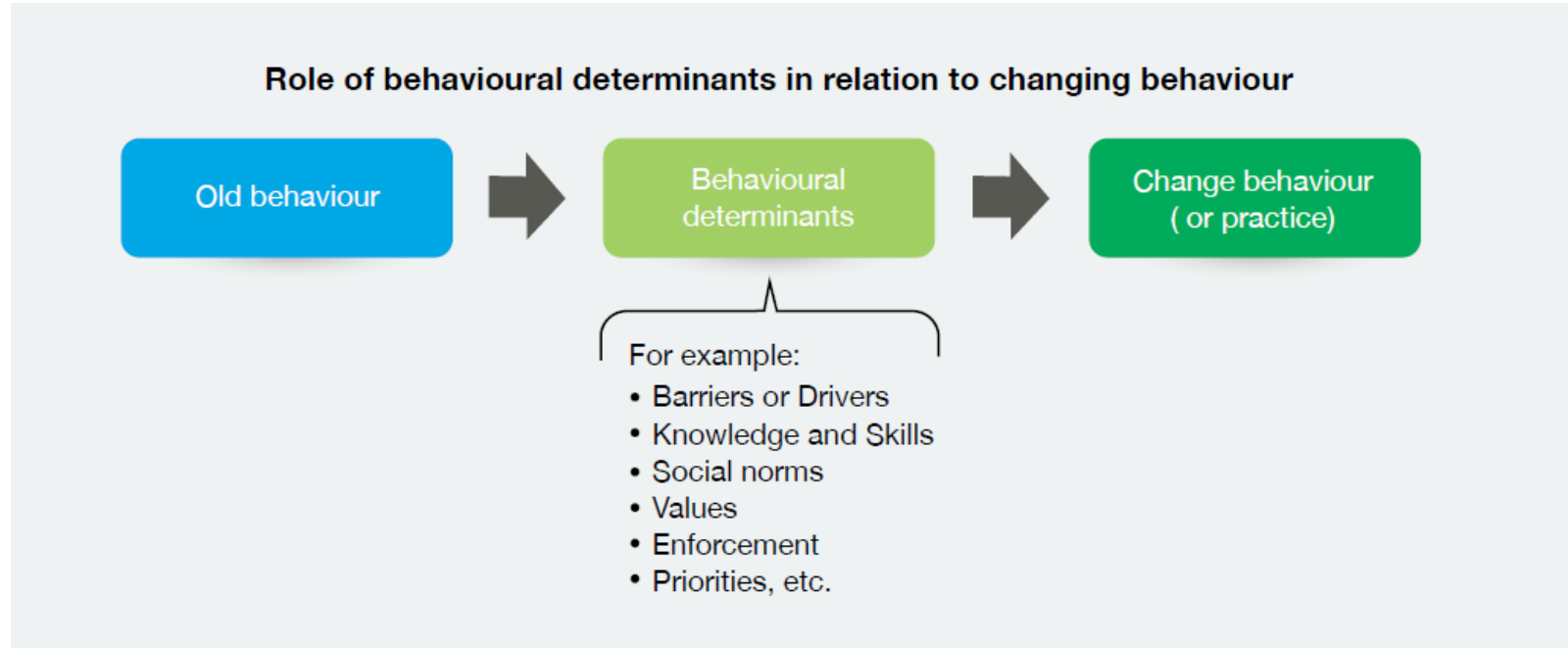
IDENTIFYING AND LEVERAGING COMPLIANCE MOTIVATIONS

Seek to understand **individual and/or organisational motivators**, including through **formative research**, to develop specific compliances strategies that respond to these.



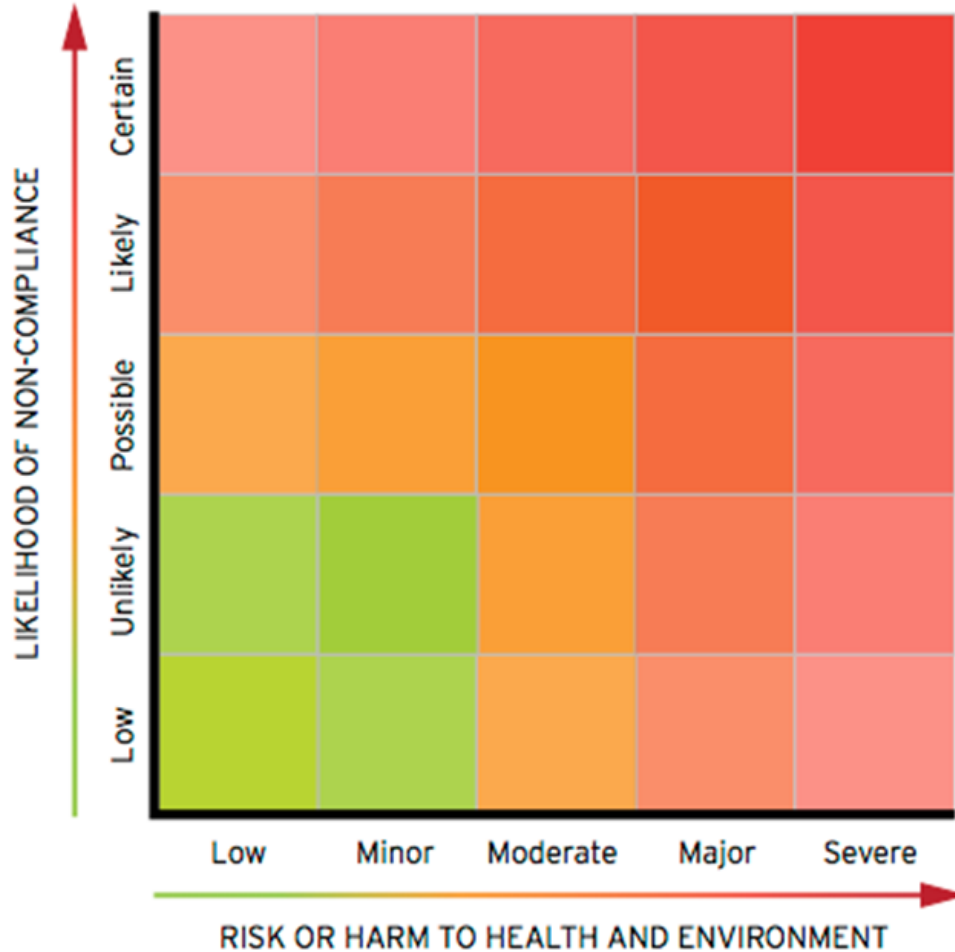
Source: Marikina City, Philippines, (Robbins 2012)

IDENTIFYING AND LEVERAGING COMPLIANCE MOTIVATIONS – EVIDENCE-BASED BEHAVIOUR CHANGE COMMUNICATION THROUGH FORMATIVE RESEARCH



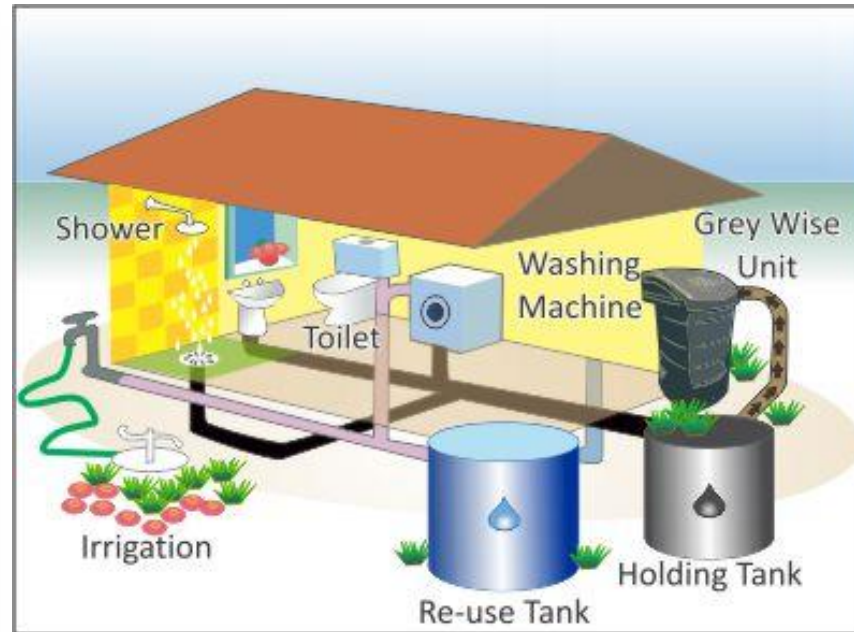
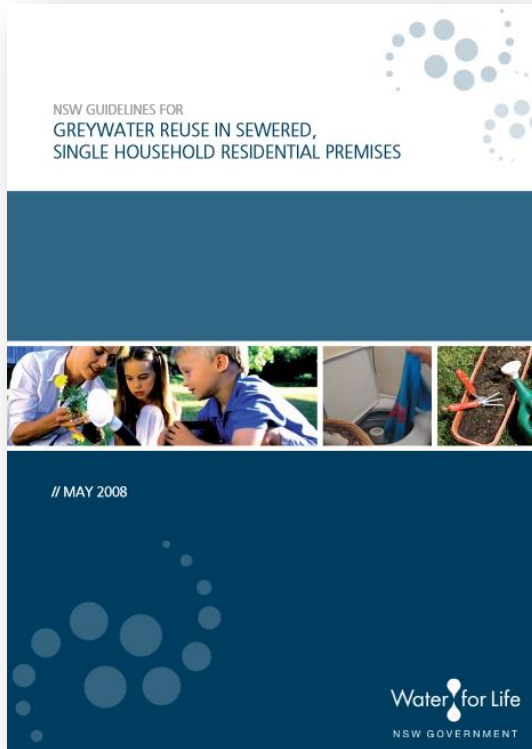
Source: SNV, BCC Guidelines, 2016

EXAMPLE OF A RISK MATRIX (ADAPTED FROM EPA NSW)
EPA's approach to targeted enforcement



APPLICATION OF RISK- BASED THINKING

APPLICATION OF RISK-BASED THINKING – GREYWATER MANAGEMENT IN AUSTRALIA



Recycle your water inside and out

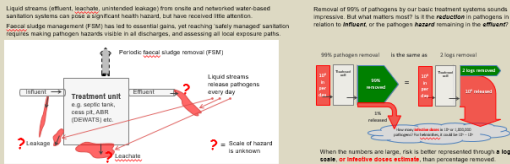
Source: NSW Government (2008)

APPLICATION OF RISK-BASED THINKING – URBAN SANITATION

Achieving safe management: A case for strengthening the attention to liquid streams in on-site and local sanitation

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 * Institute for Sustainable Futures, University of Technology Sydney
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The situation unseen



Introducing the Pathogen Hazard Diagram

We need a tool to help us identify which intended and unintended discharges from wastewater treatment systems are likely to contain hazardous levels of pathogens, which, if exposed to people, could represent a significant public health risk.

We have very little reliable location-specific pathogen data, because measuring and monitoring pathogens is still complex, expensive and technically difficult.

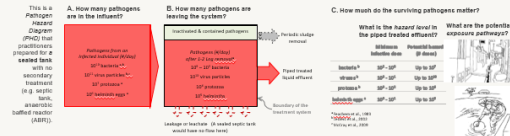
The Pathogen Hazard Diagram is offered as a simple thinking tool that relies on first principles and best-practice data to identify and assess hazard to society.

Use of the tool draws attention to:

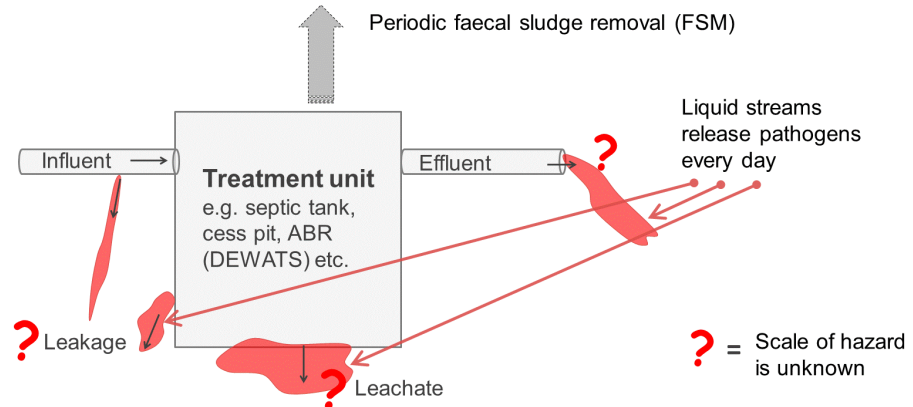
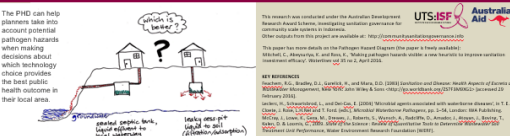
- What different sewage treatment technologies are able to achieve in reducing/hazardous pathogens.
- What pathogen levels might remain in planned and unplanned discharges from the treatment systems.
- What is the potential hazard of these pathogens in terms of infective doses.
- Where these pathogens go in the environment.



A Pathogen Hazard Diagram prompts practitioners to explore three key questions about the influent, all the exiting streams and hazard levels:



What might this mean in practice?



Are our efforts to reduce public health risk in the right place?

REGULATORY NETWORKS AND ALLIANCES

The **literature notes challenges** to applying either conventional top-down or responsive regulatory models in developing country contexts (Braithwaite 2006, Rooij and McAllister 2014).

Government authorities **may lack the necessary capacity** (in resources, technical expertise and information) and **independence**.

Capacity and expertise from third-party, non-state actors, especially NGOs, **can create networks** that promote regulatory compliance

Third-party roles can include:

- focus on transparency (“naming and shaming” offenders)
- recognising strong compliance with awards or publicity
- establishing standards

COMBINING APPROACHES AND INSTRUMENTS

Instrument category and description	Potential advantages	Potential disadvantages
Voluntary approaches – including information, education and awards	Non-coercive	Can have low impact.

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Self-regulation – industry establishes a code of conduct and processes for compliance / industry accreditation. Could include independent auditing or, in a co-regulatory model, a role for government to assist in ensuring compliance.	Self-policing can help “raise the bar” from within industry, raise expectations in the market for higher quality, and create momentum towards improvement.	Can have low reliability. Requires other drivers and incentives for industry to self-regulate (such as threat of regulation, or reputation concerns)

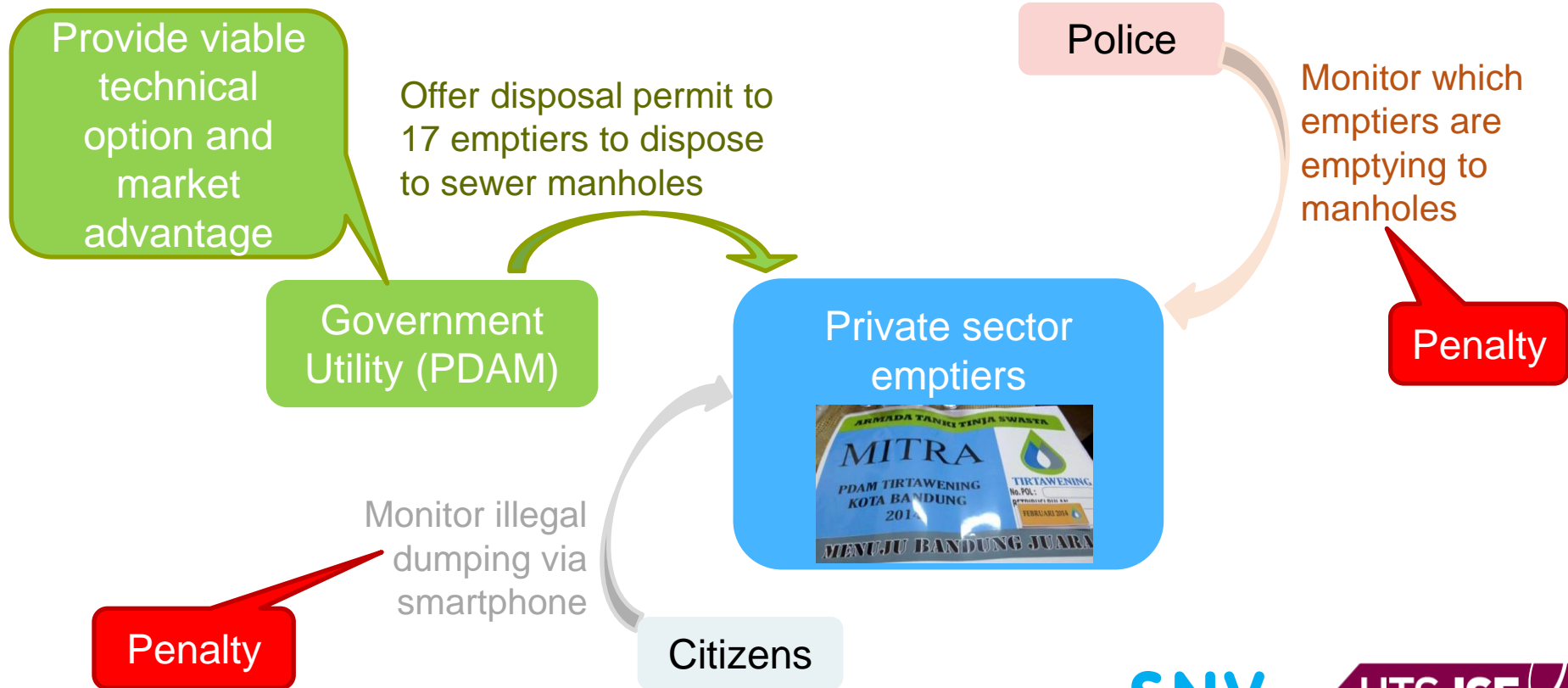
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Command and control regulation (the “regulatory approach”) – set rules and laws, and enforce non-compliance with penalties	Clarity about expectations and outcomes but only if enforced.	Enforcement requirements high. Lacks flexibility. Coercive.

BANDUNG CASE – TARGETING EFFORTS AND COMBINING INSTRUMENTS



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CONCLUSIONS

- Regulatory approaches are not limited to command-control mechanisms, and can include responsive regulation, evidence-based behaviour change communication, risk-based regulation and networked regulation.
- Different instruments can be drawn upon, including voluntary, market-based, self-regulation, co-regulation and command-control regulation.

A 'smart' approach draws on these regulatory concepts and combines different instruments to support compliance in the most cost-effective way

THANK YOU

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