

ICTs and Climate Change: A Role for Regulators?

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10th Global Symposium for Regulators
"Enabling Tomorrow's Digital World"
Dakar, Senegal, 11 November 2010



Discussion Paper: Overview

- What is Climate Change?
- Points of Contact: Where ICTs meet Climate Change
- Regulation: A Potential Point of Contact?
- Adaptation: A Current Point of Contact
- Mitigation: A Current Point of Contact
- Transformation: A Current and Future Point of Contact
- Going Forward
- Annex: The Transformative Potential of ICTs

Which ICT Players Are Regulated?



中国移动通信
CHINA MOBILE



Which ICT Activities Are Regulated?

The raison d'être of regulators is market failure.

ICT regulators seek to balance incentives and sanctions to bring about desired outcomes without micro-managing the sector.

Some regulators also shape behaviours of sector actors, which may go beyond the regulated players - to include their customers or their customer's customers.

Current scope of regulation may include:

- Ensuring fair market entry and competition
- Promoting investment
- Universal access to ICT services
- Protecting customers
- Delivery of universal service
- Any-to-any interconnection
- Network coverage
- Quality of service obligations

A Climate Change Remit for TSP Regulators?

“Although generally considered “carbon-light” relative to their contribution to gross domestic product (GDP), TSPs are often among the largest electricity consumers in a country. Furthermore, their absolute energy consumption is rising. The Smart2020 study for Global eSustainability Initiative (GeSI), showed that the sector’s current contribution to GHG emissions of around 2% of the global total is set to double...”

ITU Discussion Paper on ICTs, Climate Change and Regulation

“Unlike most other sectors, ICTs...can do something to help reduce GHGs. ICT products and services can help displace or rationalise the movement of goods and reduction of travel; promote the development of more energy efficient devices, applications and networks; and encourage environmentally friendly design...”
ITU Discussion Paper on ICTs, Climate Change and Regulation

“Climate Change.....the largest market failure of all time.”
Nicholas Stern, The Economics of Climate Change

A Climate Change Remit for TSP Regulators?



Should ICT regulators go beyond market failure in telecommunications to address climate change - “the largest market failure”?



What is the legal basis for ICT regulators to become involved in policies to reduce GHGs?



Would such policies require changes to the primary duties/enabling legislation of ICT regulators?



Should regulators have additional duties concerned with environmental matters, especially relating to climate change?



Should TSP regulators consider the potential for GHG reductions when making regulatory decisions?

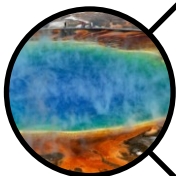


How can these interventions be implemented so that the chosen measures do not add burdens to the sector?

A Climate Change Remit for TSP Regulators?

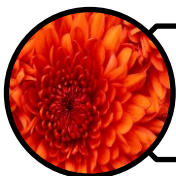


Should the ongoing United Nations Framework Convention on Climate Change (UNFCCC) negotiation process make the link between climate change and regulation of ICTs?



Should regulators factor potential environmental outcomes into their decisions, eg:

- the deployment of NGNs
- migration from analog to digital networks
- migration from 2G to 3G and beyond
- infrastructure sharing?



What should be the scope and extent of regulatory interventions which are designed to reduce ICT GHG emissions?



How should policy makers ensure that economic players can plan effectively for the integration of environmental considerations into ICT sector policies?

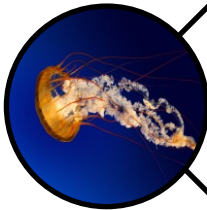
A Climate Change Remit for TSP Regulators?



How do ICT regulators effectively co-ordinate with other regulators and policy makers to ensure that ICT decisions recognize potential GHG implications - negative or positive?



Which other sectors, such as energy, transport, and health, offer the greatest scope for the beneficial linkages between ICTs and reduced GHGs to be brought about?

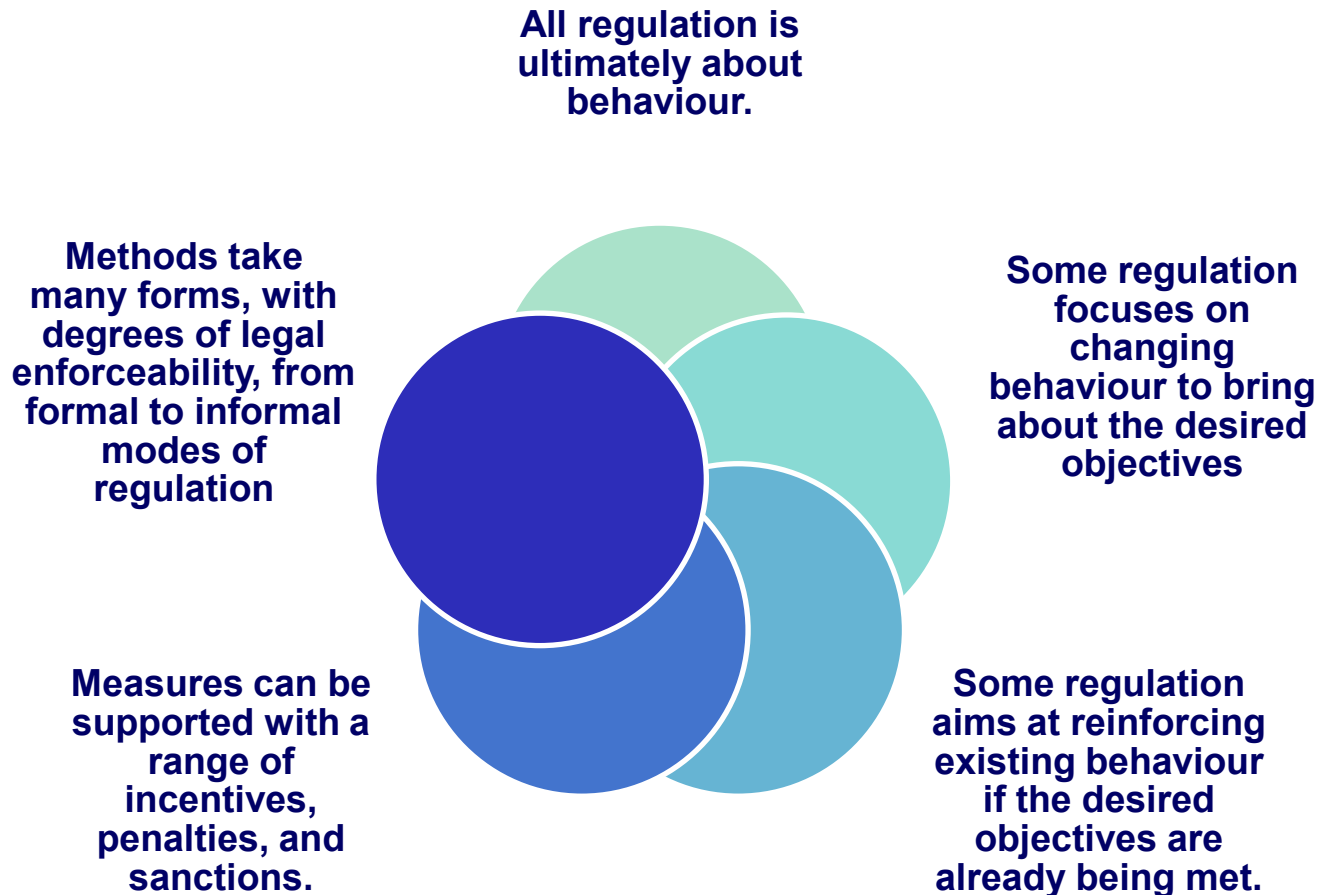


How should ICT regulators factor GHG reduction measures into their existing portfolio of policies and regulatory responsibilities?



What is the role for ICT regulators regarding environment-related measures like climate change: facilitator, enabler, promoter, awareness-raiser?

ICT Regulators and Behaviour



Formal and Informal Modes of Regulation

Formal

Based on the law

- Use of statute to lay down general principles.
- Operating licenses or general authorizations which set out the rights and obligations enjoyed by defined market players.
- Would require specific license conditions or changes to general authorizations.

Informal

Measures to steer companies and their customers towards more energy efficient and GHG-reducing types behaviours.

Based on voluntary compliance.

These measures can take many forms:

- Codes of Practice and Codes of Conduct
- Key Performance Indicators (KPIs)
- Targets
- Voluntary agreements
- Guidelines
- Best practice information
- Public consultation, publication, information and education.

Informal measures can be implemented and monitored in many ways, eg: websites, blogs, social media.

Can Regulators Shape Customer Behaviour?

"Mobile phones...have become a must carry item."

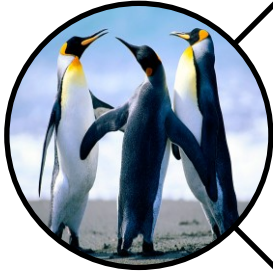
Omer Rashid, Paul Coulton & William Bird (2008)

"Little things can make a big difference."

Malcolm Gladwell (2000) *The Tipping Point*



First Step....ICT Regulators as Exemplars



Measure GHG footprint



Set reduction targets



Use ICTs to cut GHGs

Next Steps...

