

Effective Regulation of Water and Energy Infrastructure Services: Small Island Countries

Small island countries face challenges for the regulation of basic water and energy services that are different from other countries. In recent years, scholars and practitioners have paid attention to the factors that make regulation of water and energy services effective¹ in Asian countries.² However, studies conducted have tended to be confined to a theoretical and policy level, and have not focused on small island countries or the clean energy, pro-poor, or consumer protection issues they face.

Challenges Facing Small Island Countries

Small island countries possess distinct characteristics that distinguish them from large countries and small landlocked countries, and make regulatory challenges unique.

Large countries have considerable demand for utility services. In contrast, small island countries have smaller land area and smaller populations. Thus, they have limited internal demand for water and energy. The small land area and small population result in diseconomies of scale and externalities, which increase the cost of production for basic utility services. The very nature of a small country with strong social community networks may pose a constraint to establishing an independent regulator. It may also lead to an increase in the risk perceived by investors.³

Small landlocked countries can connect to the power grid or water network of neighboring countries and engage in trade of electricity or water across political borders. However, small island countries cannot engage in cross-border trading because they are surrounded by the sea and are thus isolated. The distance between neighbors makes connection economically unviable, and often logistically and technically unfeasible.

These distinctions may make it difficult to apply international best practices in regulating water and energy infrastructure and utility services in small island countries.⁴ Regulatory practices developed for large countries and small landlocked countries can be excessive or expensive when applied to small island countries.

Learning from the Caribbean Experience

Very few of the Asian Development Bank's (ADB) small island developing member countries (DMCs) have regulatory frameworks in place to govern water and energy infrastructure services. Those regulatory frameworks that do exist in DMCs are often not fully effective. Research studies generally focus on large countries, rather

than on small island countries. To the extent that research has been conducted on small countries, attention has mostly been given to the islands in the Caribbean. The regulatory experience in the Caribbean is also more extensive. Thus, experiences in Caribbean countries need to be assessed, the applicable lessons learned, and good practice regulation developed to identify methods of effective regulation in ADB's small island DMCs.

Depending on a country's specific circumstances and objectives, complementary, transitional, or hybrid regulatory models; regulation by contract; or outsourcing of regulatory functions may be considered.⁵ Regional regulators can also provide authority to improve the quality and credibility of regulation. The Eastern Caribbean Telecommunications Authority, which serves the member countries of the Organization of Eastern Caribbean States,⁶ provides a good example of a regional regulator. However, for regional regulation to be successful, considerable cooperation and trust between the countries and governments concerned are required.⁷

Assistance in Small Island Countries

In December 2007, ADB approved a regional technical assistance on Enhancing Effective Regulation of Water and Energy Infrastructure and Utility Services (RETA 6424) to examine regulatory reform experiences in DMCs. Although RETA 6424 was originally designed to examine regulatory systems in large DMCs in Southeast Asia,⁸ its coverage was expanded to include ADB small island DMCs in May 2008 after ADB recognized the need for similar assistance in small island countries. As a result, the research design for large and small island DMCs will follow a similar approach.

Box 1: Related ADB Activities

ADB has recently extended technical assistance (TA) to Samoa to develop effective regulation of the power sector through regulatory and policy reform.^a ADB has also extended a TA to the Fiji Islands to promote good governance and create a conducive environment for investments and competition in the power, water and sanitation, and telecommunications sectors.^b

A TA was approved in 2005 to identify infrastructure issues in the Pacific region. The TA aims to explore options for improved service delivery and outreach, with attention to efficiency and cost recovery.^c

^a ADB. 2006. *Technical Assistance to Samoa for Preparing the Power Sector Expansion Program*. Manila.

^b ADB. 2006. *Technical Assistance to the Fiji Islands for Improving Infrastructure Services*. Manila.

^c ADB. 2005. *Technical Assistance for Improving Delivery of Infrastructure Services*. Manila.

Box 2: ADB's Small Island Developing Member Countries

Pacific	Cooks Islands	Micronesia, Fed. States of	Samoa
	Fiji Islands	Nauru	Solomon Islands
	Kiribati	Palau	Tonga
	Marshall Islands	Papua New Guinea	Tuvalu
			Vanuatu
Asia	Maldives		

RETA 6424, as expanded, expects to achieve its objectives by assessing the water and energy regulatory reforms in the small island DMCs and countries with comparable economic and cultural characteristics, particularly those in the Caribbean.

ADB will first consider the challenges and constraints facing Pacific DMCs, such as the Fiji Islands, Palau, Samoa, and Vanuatu. Then, an investigation will be conducted into the Caribbean experience and the results shared with small island DMCs in a workshop.

Building upon previous studies, RETA 6424 will view the effectiveness of regulatory reform from both formal (what exists on paper) and informal levels (what exists in practice). To do this, RETA 6424 will consider feedback from governments, investors, consumers, and citizens on the effectiveness of regulatory reforms. The RETA will also investigate the status and impact of current regulatory practices on pro-poor, consumer protection and environmental regulation, and how these issues relate to ensuring broader access to services that are crucial for small island countries. RETA 6424 will look into the role of regulation in promoting sustainable development and addressing the challenges posed by climate change.

The Government of Australia, through the Australian Agency for International Development, will fund the RETA's small island countries component in the amount of \$700,000.

Regulatory Networks

RETA 6424 will expand and deepen ADB's knowledge of infrastructure regulation. ADB will seek to share this knowledge with small island DMCs, development partners, and networks, such as the East Asia and Pacific Infrastructure Regulatory Forum, Public-Private Infrastructure Advisory Facility, Pacific Power Association, Pacific Water Association, Pacific Islands Forum Secretariat, and Pacific Islands Applied Geoscience Commission.

Moving Forward

RETA 6424 is expected to improve the design and implementation of water and energy sector reforms in small island DMCs by considering the effectiveness of water and regulatory reforms so far undertaken in small island countries in the Pacific and Caribbean. The results will be disseminated to regulators and decision makers

in the Asia and Pacific countries to contribute to their knowledge, capacity, and exposure to best practices. ■

¹ Brown, Ashley, et al. 2006. *Handbook for Evaluating Infrastructure Regulatory Systems*. Washington, DC: World Bank; Levy, B., and P. Spiller. 1996. *Regulations, Institutions and Commitment: Comparative Studies of Telecommunications*. New York: Cambridge University Press.

² Jacobs, Scott. 2004. *Governance of Asian Utilities: New Regulators Struggle in Difficult Environments*. *The Governance Brief* 10-2004. Available: www.adb.org/Documents/Periodicals/GB/GovernanceBrief10.pdf; Kirkpatrick, Colin, and David Parker. 2004. *Infrastructure Regulation: Models for Developing Asia*. *ADB Research Paper Series* No. 60. Tokyo: ADBI; Nakhooda, Smita, Shantanu Dixit, and Navroz K. Dubash. 2007. *Empowering People: A Governance Analysis of Electricity*. Washington, DC: World Resources Institute; Brown, Ashley, et al. 2006. *Handbook for Evaluating Infrastructure Regulatory Systems*. Washington, DC: World Bank.

³ Benskin-Murray, Cyralene. 2004. *Fundamentals of an Independent and Transparent Regulator*. Paper presented to the Organisation of Caribbean Utilities Regulators (OOCUR) 2nd Annual Conference, OOCUR, Jamaica, 3 November. Muzzini, Elisa. 2005. *Consumer Participation in Infrastructure Regulation Evidence from the East Asia and Pacific Region*. Washington, DC: World Bank.

⁴ Escaith, Hubert. 2001. *The Small Economies of Latin America and the Caribbean*. *CEPAL Review* 74: 67–81.

⁵ Eberhard, Anton. 2007. *Matching regulatory design to country circumstances: The potential of hybrid transitional models*. *Gridlines*, Note no. 23, May 2007.

⁶ The member countries of the Organisation of Eastern Caribbean States (OECES) are Antigua and Barbuda, Commonwealth of Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines. Anguilla and the British Virgin Islands are associate members of the OECES. The Eastern Caribbean Telecommunications Authority (ECTEL) is the telecommunications regulator of Commonwealth of Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines.

⁷ Stern, Jon. 2000. *Electricity and telecommunication regulatory institutions in small and developing countries*. *Utilities Policy* 9: 131–157. See also Bertolini, Lorenzo. 2004. *Contracting Out Regulatory Functions*. *World Bank Group Private Sector Development Vice Presidency Note* Number 269 (April). Washington, DC: World Bank.

⁸ See *Law and Policy Reform Brief* No. 2.

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Recent ADB initiatives on infrastructure regulation, including RETA 6424: Enhancing Effective Regulation of Water and Energy Infrastructure and Utility Services, are available online at www.adb.org/Documents/TARs/REG/41683-REG-TAR.pdf.