ADB Asian Development Bank

Department of External Relations

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Media Fast Facts

ECONOMICS OF REDUCING GHG EMISSIONS IN SOUTH ASIA – ADB STUDY

- South Asia is home to half the world's poor and is the most vulnerable region in Asia to climate change impacts driven by fast-rising greenhouse gas emissions (GHGs). (p.1 INTRODUCTION)

- With no action to combat climate change, energy-related GHG emissions from Bangladesh, Bhutan, the Maldives, Nepal, and Sri Lanka will rise from about 58 million tons of carbon dioxide equivalent in 2005 to about 245 million in 2030. (xi EXEC SUMMARY, p. 49)

- Primary energy use by 2030 will reach nearly 3,588 petajoules, more than 2 times the level seen in 2005, with coal's share of the power generation fuel mix growing from almost zero to nearly two-thirds of the total. (xi EXEC SUMMARY, p.48)

- Data from Bhutan, India, and Sri Lanka show energy-related GHGs made up nearly 80% of total emissions in 2000 and the power generation sector offers the largest potential for overall emission reductions in the region. (p.17, 49, 55)

- There is the potential to cut GHG emissions by an annual 13.3 million tons of carbon dioxide equivalent by 2020 at no additional cost by deploying readily available clean, renewable, and energy-efficient technologies. (p.58)

- With an Incremental Abatement Cost of up to $10 per ton of carbon dioxide the GHGs will fall by 21.9% in 2020 (p.58).

- Green options which could be deployed include energy-efficient light bulbs and machines; switching cars to compressed natural gas and gasohol; using electricity for cooking instead of kerosene and LPG; increasing the use of electric buses and other vehicles; improving the efficiency of fuel wood stoves and water heaters, and expanding the use of efficient diesel tractors and biodiesel-powered fishing boats. (p.61)

- Bringing in no-cost options to cut GHG emissions will need regulatory and policy changes, including phasing out direct and indirect fuel subsidies; promoting research and development of green technologies and energy efficiency; investing in sector education and training; and finding new innovative financing mechanisms that can tap private sector investment. (p 85-96).

- Subsidies and favorable tax policies, as well as measures like feed-in tariff incentives and renewable energy certificates will be required to reduce the initial costs of cleaner technologies and to promote their wider use. (p.88-92)

- Introducing a carbon tax in Bangladesh, Bhutan, the Maldives, Nepal, and Sri Lanka could prevent the release of almost 1 billion tons of energy-related GHGs between now and 2030 (xii EXEC SUMMARY, p. 58, 79)

- In 2030, a carbon tax would mean energy-related GHG emissions of 191 million tons of carbon dioxide equivalent compared with 245 million if there is no carbon tax. (table 22)

- A carbon tax of $15 per ton of carbon dioxide rising to $41 by 2030, would help shift energy toward clean, renewable sources. between 2005 and 2030 and reduce GHGs by 22% (p. 37, 58,)

- Sri Lanka stands to reduce GHGs significantly from a carbon tax, with its cumulative GHGs falling 21.8% between now and 2030; with Bangladesh down 9.4%; Nepal down 1%; Maldives down 0.41%; and Bhutan down 0.07%. (country sections)

Source: ADB study 'Economics of Reducing Greenhouse Gas Emissions in South Asia: Options and Costs'