

removal of all energy subsidies, including those on coal in the industrialized countries, would sharply reduce local pollution and cut global carbon emissions from energy by 10 percent.<sup>7</sup>

Anecdotal evidence indicates that many governments underprice natural resources. Figure 1 presents some data on the ratio of user prices to production costs for some energy and agricultural inputs. From this data, it is evident that many users pay less than the production costs of natural resource inputs. In Mexico, farmers pay only 20 percent of the production cost of irrigation water. In the U.S., to give another example, it has been estimated that the Bureau of Reclamation provides a subsidy to the farms that use its water of over U.S. \$1 billion per year.<sup>8</sup> The underpricing of timber rights (i.e., below replacement cost) may encourage excessive logging. The World Bank has reported that, in a sample of African countries, timber stumpage fees constitute only a small percentage (less than five per cent in the cases of Niger, Senegal and Sudan) of the replacement costs.<sup>9</sup> Higher input costs, such as for energy, are also likely to stimulate interest in more efficient production processes, with corresponding environmental benefits<sup>10</sup>. Both the World Bank and the International Monetary Fund are increasingly trying to encourage countries receiving financing, such as for electric power projects, to adopt more environmentally (and economically) sound pricing policies.<sup>11</sup> There is a clear need for extensive empirical

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<sup>7</sup>Ibid. p.12.

<sup>8</sup>John Proops, Paul Steele, Ece Ozdemiroglu, and David Pearce, "The Internalisation of Environmental Costs and Resource Values: A Conceptual Study", UNCTAD/COM/27, November 1993, pp. 9-11.

<sup>9</sup>World Bank, World Development Report (1992), p.149.

<sup>10</sup>In respect of government regulation of energy pricing, Article 604 of the NAFTA is important. William G. Watson has concluded that: "Two-price systems of the kind that, in the 1970s and early 1980s, kept domestic Canadian energy prices well below the world price and encouraged excessive consumption in this country are all but impossible under the NAFTA." See William G. Watson, "Environmental and Labour Standards in the NAFTA", Commentary No. 57, Toronto: C.D. Howe Institute, 1994, pp. 7-8.

<sup>11</sup>The World Bank Annual (1993), p.49, reports that the Bank will be more selective about where it lends and that: "Support will not continue for energy-supply projects where poorly performing public energy enterprises and governments are unwilling to carry out fundamental structural reforms that could significantly improve the ways they do business. To receive new commitments from the Bank, governments should clearly show they are setting up structural incentives that lead to more efficient energy production and use". An UNCTAD report has noted that the World Bank and IMF have made