

**Integrating Environmental and Natural Resource Accounting Into Local Government Planning: A Modified Input-Output Model for LGUs**

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The study constructs a 10-sector input-output table for Lipa City, Batangas, Philippines and modifies it to accommodate environmental variables that can be used to gauge the impact of policy-induced changes of output on the environment. Input-output impact multipliers were generated using two specifications of the Leontief matrix. Simulations were performed to show how changes in final demand and output will affect environmental and other impact variables.

Taking into account environmental variables, total output was reduced by 0.016% or by PhP 2.323 million, reflecting the value of the environmental damage that the production process causes through water and air pollution. The scenario with a 5% final demand increase for agriculture, 7% increase demand for manufacturing, and 15% increase in trading raised gross output of agriculture by 12%, trade by 14% and manufacturing by 7.2%; total gross output increased by 7.6%. The increase in sectoral outputs however increased the value of environmental waste disposal services for air and water by 16% and 8% respectively. The value of environmental damages for air and water likewise increased by 6% (air) and 3% (water) due to more intense pressure on the environment by increased production and consumption activities.

Keywords: environmental accounting, pollution, natural resources