

Numerate Triple Bottom Line Accounting For The West African Economy – An Input-Output Analysis

Topic: Input-output analysis for policy making 1

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In this study, the principle of the triple bottom line is assessed using input-output analysis (IOA). Input-output analysis is a top-down economic technique, which uses sectoral monetary transactions data to account in a “snap-shot”-like manner for the complex interdependencies of industries in the West African economies. The sectors form part of a strongly linked value adding chain.

The study integrated financial input-output tables that describe the inter-dependencies between economic sectors, with the sub-continent social and environmental accounts to construct numerate 'triple bottom line' accounts for 10 discrete sectors. Expectedly the accounts are portrayed against the numeraire of 'one dollar of final demand'. The numerate triple bottom line was applied to financial accounts of firms services or a product, across a range of scales.

In this study we use the approach to compare 10 aggregated sectors of the 8 West African economies eg petroleum, agriculture, food manufacture, mining, non-food manufacturing, construction, transport and communications, health ,privates services and public services. The analysis reveals that the triple bottom line issues for each of these aggregated sectors, however certain constraints does not enable feasible solutions under the conditions of incremental and marginal change that characterise modern economic systems. Improving the social indicators is more of a challenge since sector aggregates such as petroleum, mining and private services for example, have evolved over many decades to be capital intense, skill rich and employment poor. In comparison, construction and public services have employment and income intensities similar to the economy wide average. The most radical challenge is presented by the tension between the higher profit and lower employment offered by 'private services' and the opposite of no profits and higher employment typical of 'public services'.

Further the study identifies significant policy tension between implementing the changes suggested by this aggregated and macro-analysis, and stimulating those changes at a sector by sector level. The study suggests that basic prices of fuel prices should be substantially increased through subsidy removal to allow sufficient investment into management technologies that reduce the environmental loadings of fuel production challenges the trend of the last three decades where real consumer prices for most items have declined. Finally the study suggest analysis of downstream effects which will highlight consumption issues as an important consideration in subsequent research.