



## The Unbearable Lightness of Green: The Linkage Hypothesis and The Green Economy

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### ABSTRACT

Although the green economy strongly calls for lower environment-intensive industries, many least developed economies still rest their development strategies on highly environment-intensive sectors. Alongside the unbalanced growth or linkage hypothesis, put forward by Hirschman, in the 1950's, these activities are usually claimed to bear the highest indices of sectoral linkages and to therefore yield the fastest growth rates. While this approach opposes the big push or balanced growth strategy of development, which argues for a dispersal of investments over a wide range of industries, it likewise minds only about the product load onto the economy and misses out the by-product overload the economic system could accordingly carry. No matter how light any growth strategy — even the green one — may sound, it might turn out to be unsustainable if it disregards its by-products (natural resource depletion and wastes). Although yielding faster growth rates, due to their high technological linkages, some industries may also foster rubbish scattering over the economy, due to their strong pollution interdependence. So as to show that faster growth rates alone might fail to meet a green growth pattern, an environmentally augmented input-output model was applied to Rio Grande do Sul's (RS) economy — the fourth richest federate state in Brazil. Lower lines added to RS's standard intersectoral matrix accounted, in thousand tonnes per year, for hazardous and non-hazardous wastes dumped per economic sector to yield its output, measured in monetary units (million euros). The sectors studied — metals, machinery, chemical and leather — were selected out of the latest Brazilian industrial solid waste inventory and represented, in 2002, over 95% of the industries sampled for RS. The results show that the widespread use of the most basic ("non-hazardous") wastes is pulled by the activity of the strong backward linkage sector ("metals") activity.

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