Digital Transformation and Green Taxation: A CS-ARDL Approach to Assess the Impact of Energy Capacity on Environmental Quality in Egypt, Morocco and Tunisia

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Abstract: This paper analyses the environmental impacts of digitization, green taxation and energy capacity in Egypt, Morocco and Tunisia. Using the Kuznets curve and the CS-ARDL model, the study distinguishes between short-run and long-run effects. The results show that initial growth increases greenhouse gas emissions, but beyond a critical threshold, investments in digital and energy infrastructure, as well as green fiscal measures, contribute to their reduction. Digital transformation, coupled with green taxation, thus appears to be a key lever for reconciling economic development and environmental sustainability in North Africa.

Keywords: Digitalization, green taxation, environmental quality, North Africa, CS-ARDL

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