Editorial

Ghanaian Journal of Economics
Volume 6, December 2018

In Honor of Professor Karl-Göran Mäler
"Economics of Natural Resource Management in Africa."

The papers in this special volume of the *Ghanaian Journal of Economics* celebrate the contributions of one of the world's leading scholars and intellectual figures, Karl-Göran Markus Mäler. He is an economist whose contributions have been influential, particularly in the field of environmental economics. His dedication and contribution to the study of the intersection of ecology and economics – environmental economics – were acknowledged by Nobel Laureate and Karl's co-author, Kenneth Arrow in an interview. According to Kenneth Arrow (see, Monroe and Lampros, 2017, p. 108[1]): "There is an institution in Sweden called the Beijer Institute for Ecological Economics. Beijer is a wealthy family ... they were induced to endow an institute for studying the intersection of ecology and economics. *It was originated by an economist.* It's one of the things that embodies Emerson's dictum: "Every institution is the length and shadow of one man." Which is not to suggest that I think this dictum is generally entirely true, *but in this case it is*. Karl-Goran Maler was an economist by training, but right from his dissertation he was very much involved in ecological concerns." Italized font ours.

Echoing Kenneth Arrow's sentiments, we believe this collection of papers will stand as a testament to the importance of Karl-Goran's contributions to economics and ecology, but most importantly, promoting environmental and resource research in developing countries.

The paper by Edward Barbier is a good analytical survey of the importance of incorporating natural capital depreciation in national income accounting and the management of natural capital in Sub-Saharan Africa (SSA). He correctly argues that the depletion of a country's stock of natural capital should be accompanied by investing in more than enough additional reproducible capital to replace its lost wealth. If this happens there will be not too much difference between gross national income and adjusted net national income. One way of investing in reproducible capital is through the creation of Sovereign Wealth Funds. In SSA, he finds that

1. *Monroe, K.R., and Lampros, M.N. (2017). On ethics and economics: conversations with Kenneth J. Arrow. New York: Routledge.*

the best performing countries with funds are Botswana, São Tomé and Príncipe, and Namibia and that the overall management practices and governance of natural resource-based sovereign wealth funds in SSA need improvement.

Daniela Miteva and Zachary Brown's paper examines the link between prolonged military conflict, land titles and investment in the land in two post-conflict districts in northern Uganda. She finds that, given the history of prolonged military activities in the region, the emergence of land titling alone is not sufficient to promote growth or investment. Informal or *de facto* land rights may play an important role even in presence of *de jure* rights to land.

Focusing on Libya, Ali Elwerfelli and James Benhin ask "Is the Dutch disease ample evidence of a resource curse?" The Dutch disease refers to an appreciation of the real exchange rate resulting from increased exports and capital inflows induced by a booming natural resource industry. In theory, this can crowd out domestic manufacturing and other exporting sectors, a negative effect of the resource industry known as the resource curse. Contrary to this theoretical prediction, Ali Elwerfelli and James Benhin, did not find the Dutch disease in Libya over the period 1970-2010.

The availability of good statistics or data is very important for policy-making, implementation, and forecasting. Agricultural policy is no exception. Channing Arndt and six co-authors take up the issue of the quality and timeliness of agricultural production data in Sub-Sahara Africa (SSA). Improved agricultural production projections and estimates benefit farmers and other market participants. In spite of these benefits and the availability of technologies such as satellite remote sensing, these authors find that the quality and timeliness of agricultural production data in SSA are grossly inadequate. Their paper is a call to action.

Anders Ekbom, Gardner Brown, and Thomas Sterner study the economic effects of soil erosion. The social costs of soil erosion include loss of health, reduced productivity, and pollution of freshwater bodies. By incorporating downstream externalities of soil erosion in a dynamic model, their analysis led them to the conclusion that governments should provide incentives to farmers to prevent negative externalities on downstream users. This is even more so because such downstream users have very few opportunities to negotiate with upstream farmers.

Rashid Sumaila's paper is a quantitative and qualitative assessment of the economic and social cost of illicit trade in marine resources. He finds *substantial* effects of such illicit trade in the marine resources of West Africa. In addition to his statistical analysis of this illicit trade, he opens the black box of this activity by unravelling the channels through which illicit trade in fish and fish products take place in West Africa.

Finally, Wisdom Akaplu builds static and dynamic mathematical models to study the management of fisheries under two regimes: common-pool rights and territorial-use rights. He compares the solution by a social planner with the decentralized market solution and finds the standard result that the market solution is inefficient. An expression for the socially efficient tax is derived and computed for communally owned fishery using data on artisanal fishing in Ghana.

It is impossible to do full justice in this special issue to the immense positive impact that Karl-Göran Mäler has had on the economics profession and beyond. We nevertheless hope that the articles in this special issue and our introduction showcase many of the ways through which Karl's research and professional service made an impact.

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Editors