

URBAN TRANSFORMATIONS & REGIONAL RESILIENCE

VIRTUAL LECTURE SERIES | SPRING 2021

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REFLECTED IN WATER: NOTES ON DEVELOPMENT, RESILIENCE & INEQUALITIES

ABSTRACT

While the impact of improved agriculture is perceived directly by the GDP of the region implementing the related water resources use schemes, the social and economic cost of the increased burden of the disease is hard to quantify, let alone predict. A debilitating disease, schistosomiasis is a poverty-reinforcing neglected disease owing to its low mortality and impact on the poorest alone. While contemporary economics is considering the proper manner to account for the social and economic cost of future loss of workforce, immaterial factors pitch in and an assessment seems still unlikely anytime soon. Pricing environmental services is essential. A price tag means discounting the environment, and pricing is necessary inasmuch as declaring that some good is priceless is tantamount to assuming that its worth is next to nothing. Others contend that price is not value, and accepting that it is impossible to price all ecosystem services may be the vehicle for them to be given a non-monetary value. Material and immaterial values should then be considered in their own units (say, the number of species rescued from extinction, or the number of averted cases in epidemics, for the latter). Not surprisingly, therefore, pricing biodiversity and ecosystem services has been termed "the never-ending story". This has to do with urban transformations, of course. Jonathan Ledgard lectures on technological futures of Africa as a hotbed (and a test) for contemporary thought, stating that within the next 15 years 800 million people will live in cities that do not exist yet. Key to master all the above is our capability to assess and reliably predict the spread of the disease under different scenarios -- of economic and water developments, of human mobility and awareness of the mechanisms of infection (hinged on proper educational systems), of improved or worsening water, sanitation and hygiene conditions. My talk is focused on reflections stemming from the considerations above. Progress in this area, it is my belief, is ready to be used for the betterment of society at large, as well as to help in the assessment of the wealth or poverty of Nations.

As an economy's GDP could be made to grow, and its related societal indicators made to apparently improve for a time, by mining natural capital (say, by decimating forests, damaging soil, destroying key ecosystem services like depleting renewable resources or reducing biodiversity), there is no excuse for not using what we have learned to assess true costs and benefits of development thinking, and to rethink distributive justice, where a large share of the basis for environmental thinking could be made quantitative. From this particular angle, I shall give the students my idiosyncratic reflections on resilience, inequalities and development. Will future large-scale water resources plans be making compelling arguments for including the reduction of the loss of biodiversity across scales in river basins? Could the structure of river networks be a template for large-scale spreading of waterborne disease infections? Are we capable to provide solid economic arguments for preventing water development schemes in the light of the social and economic cost of predicted increased burden of disease they would bring? Do biological invasions, including historic population migrations that shaped human community compositions as we see them now, depend on physical constraints like the river networks acting as the substrate for their dispersal? Social discounting applied to public policies concerning the preservation of the natural capital needs quantitative assessments, and thus an "engineering" capable to produce reliable scenarios. Evaluations of the effects of learning-impairing disabilities brought in by neglected waterborne disease are neither ethical primitives nor market values observable like return rates of an investment. They need reliable projections, evaluations of management alternatives, proper cost-benefit analyses. This is only possible if we are capable to evaluate material/immaterial and present/future commodities. Our ignorance of the true economic value of the natural capital is often an unsurmountable barrier to proper policy analysis. Contributing to lift this veil of ignorance seems like a worthwhile endeavor because no economy can survive without natural capital.

In the case of the ecosystem services provided by the waters of the hydrologic cycle, that is all that is reflected in water, I contend that time is ripe for retooling our decision-making basis and our notions of resilience, development and its effects on inequalities.

PRESENTED BY

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