“The challenge of bottom-up approaches for infrastructure investment is the requirement of resource intense market analyses, stakeholder capacity and their engagement through sophisticated methodologies, which have pitfalls in their own rights.”

– Holger KUHLE, Deutsche Gesellschaft für Internationale Zusammenarbeit, Berlin

Image Source: Intersections: favelas, port city and the Rio Niteroi viaduct, Prefeitura da Cidade do Rio de Janeiro, Brazil. Image by Nicolas J.A. Buchoud, all rights reserved ©.

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Sustainable infrastructure isn't just about an outcome, but also who has a say in it

If infrastructure gaps are based on statistical estimates or top-down approaches, they have to rely on oftentimes-incomplete data sources and to make a series of normative assumptions. More often than not, they are incommensurable and say little about regional differences and local contexts such as relevant delivery and institutional regimes, project preparation capacities, or legal and regulatory frameworks. At the same time, while contextually specific studies at smaller scales provide more robust and fine-grained investment figures, it is difficult to extrapolate their investment figures to larger scales. The point is about critical co-constitution of data collection and data per se. In other words, data is laden and not neutral.

Infrastructure investment gaps can be estimated via top down approaches. Departing from normative assumptions about future infrastructure needs it derives the infrastructure gap by comparing historical and present infrastructure spending to estimates for future investment needs. These analyses estimate the existing capital needs of infrastructure projects based on specific project pipelines derived from market analyses and existing regional capital plans. In comparison to this, bottom-up approaches are contextually specific and mindful of existing public policy, delivery regimes, and infrastructure projects.

The challenge of bottom-up approaches is the requirement of resource intense market analyses, stakeholder capacity and their engagement through sophisticated methodologies, which have pitfalls in their own rights. Considering these challenges, this is the area where the contribution of technical international cooperation remains key.

Supporting municipal governments to play the central role in charting their own financial destinies while they are often co-opted by the prerogatives of central governments or the financial sector is obviously an important domain for international development cooperation. With empowerment from central governments and sufficient internal capacity development to conceive and assess funding options for capital-intensive projects, city leaders can both assist their central governments in delivering on the global agendas like the 2030 Agenda and the Paris Climate Agreement and improving the quality of life for their constituents.

Strengthening urban managers and communities in their capacity and ability to deal with the interconnections between built environments, digital economy, socio-economic divide and spatial dynamics and in their contextualized derivation of infrastructure and investments needs remains a key area for international development cooperation.

Developing an economic basis and solvency of cities through enabling them to analyze attentively the effects of funding of financial intermediaries to their future budgets is a major task for the near future. It is about the cities capacity to keep or build their sustainable budgets over the time. This relates to the roles of the providers of equity, debt and money at the city, national and the external financiers' level, respectively (including the potential capacity of pension systems). They all have different risk and rewards profiles, timing preferences and determine profoundly a city's capacity of an inclusive and sustainable development over time.

The current pandemic has shown the value of adaptive need infrastructure finance development and the need for building socio-economically resilient cities budgets. The challenge is firstly that in many cities neither one nor the other is given. On the other hand, there is a disconnect between these two. In future, it will be necessary for international cooperation to bridge this gap when supporting cities.