



Dresden Nexus Conference (DNC2020) under the theme “Circular Economy in a Sustainable Society”

Title: The Green Finance Modeling of Nature-Based Solution Projects towards Circular Economy on European Cities

INTRODUCTION:

Works on science, policy and practice related to management of natural environment regularly encounter new ideas and terminologies. The most recent entry to this discourse is “Nature-Based Solutions” (NBS), a concept introduced specifically to promote nature as means for providing solutions to climate mitigation and adaptation challenges. It can be defined as “solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience” (European Commission, 2016, p. 1). Policy-makers have integrated it into their framework program for research and innovation, “Horizon 2020” aligned with goals of innovation for growth and job creation and as a potential opening for transformation towards sustainable societal development. NBS, are directly relevant to several policy areas and through their systemic nature interact with many others, such as land use and spatial planning. They are also seen as open innovations that require engagement with multiple actors, providing co-benefits that bridge social and economic interests and as thus, can stimulate new green economies and green jobs (Kabisch et al., 2017; Raymond et al., 2017).

This concept opens an approach to collaborative governance that allows learning with and about new appealing designs, perceptions and images of nature from different urban actors allows forming of new institutions for operating and maintaining nature-based solutions to ensure inclusivity, livability and resilience.

From the managerial perspective the importance of NbSs is that it shifts the focus to multi-sector solutions-oriented policies and strategies that address specific environmental, social and economic problems deemed important to key stakeholders in cities (e.g., supporting social cohesion and well-being using green infrastructure). From a governance arrangement perspective, this may require agencies to reduce the amount of effort directed towards the development of permanent management structures and increase focus on temporary systems to achieve a limited solutions-oriented agenda across multiple sectors, agencies and interests. Individuals from different policy units (within and across departments) could come together to identify specific problems and then review, design, implement and evaluate NBS to address them in solution-oriented teams.

If only take a report from Denmark it concludes that 60 per cent of Danish municipalities lack know-how on how to finance green projects.

And there is a huge gap in financing those type of projects and more over there is no any consensus on the modeling which can give valuable insights on proper allocation of financial funds.

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ABSTRACT

The focus of this work is to advance the understanding of nature based solutions as an innovative solution on a circular economy with special emphasizes on the case of self-governing and self-operating models which priory has the potential to be implemented in different settings, because despite those co-benefits and inclusive nature of the framework serving as solutions one of the main challenges so far has been delivering them to different stakeholders especially to private sector mainly due to a financing gap on such projects. In this regard, many municipalities in Europe report that they lack know-how on how to finance green projects. For this reason the main research objective of the work is to model green finance for nature-based solution projects. The possible solution of this gap is the retrodution approach suggested by Lagoarde-Segot (2019) which clearly calls for applying a multimethod research in finance (combined data analysis with case studies, interviews or other ethnographic sources) and for interpreting research findings from a multidisciplinary perspective we can use the finance methods well known so far.

Key words: *nature based solutions, circular economy, sustainability, green finance projects*

RESULTS AND DISCUSSION

Despite the co-benefits and inclusive nature of the framework serving as solutions one of the main challenges so far has been delivering them to different stakeholders especially to private sector .

The main idea of including micro factors is to be inclusive while by the nature “green innovation projects” require more patient long-term committed financial capital which mainly can be provided by a different type of financial institution, like public investment banks.

To increase the financing opportunities to small actors, we suggest adding the spill over tax introduced by Yoshino et al. (2018) which increase the supply of green projects.

CONCLUSIONS

1-Nature-based solution projects seems to be among the most sustainable projects which require changing the investment culture and behavior of all market participants.

2-Those solutions may be very effective especially to better manage the water related challenges.

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