NETWORK FOR ENGINEERING WITH NATURE

PROJECT FACT SHEET: ASSESSING COSTS AND BENEFITS

CHARACTERIZING US ARMY CORPS OF ENGINEERS NATURAL INFRASTRUCTURE PROJECTS

BACKGROUND

When choosing between different projects, the US Army Corps of Engineers (USACE) is required to assess multiple alternative plans and select the alternative that maximizes net benefits. In many cases, by law, one of those alternatives assessed must be a project that incorporates natural infrastructure (NI). However, comparing the net benefits of traditional engineering plans and NI is not straightforward. NI typically offers a wide range of co-benefits, some of which are difficult to quantify and monetize (for example, improved habitat for biodiversity, water filtration and improved aesthetics). If these co-benefits are left out of the calculation of net benefits, NI is disadvantaged in the comparison; a fact that is acknowledge by USACE. Despite this disadvantage, the implementation of NI projects is growing. USACE does not have a centralized database with information on NI projects but is currently developing approaches to track NI projects in response to reporting requirements to Congress.

APPROACH

We will build on ongoing efforts at USACE to track NI projects (such as EWN ProMap). We will augment the characterization of NI projects in existing Corps' databases with information from a review of feasibility studies regarding types of costs, benefits (as well as the presence of intangible or currently unquantifiable impacts) and methods for assessing costs and benefits.

DELIVERABLES

This project will track and characterize USACE's NI projects to understand how the organization considers costs and benefits (i.e. what projects "make the cut") and to identify challenges in assessing NI for improved accuracy and efficiency in measuring and estimating net benefits. We will deliver a database characterizing Corps' NI projects, which will serve as the base of a series of white papers exploring their temporal evolution, spatial distribution, and an in depth evaluation of a subset of NI projects to understand project selection criteria.

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