

# IEEM AND ECOSYSTEM SERVICES MODELING

Valuing Natural Capital and Ecosystem Services' Contribution to Economic Development

4

The IEEM+ESM approach values natural capital's contribution to economic development.

In this example, the strategy to achieve SDG 15 contributed an additional US\$312,027 in erosion mitigation ecosystem services to the economy



**IEEM+ESM:** Provides insights that optimize public investment and decision-making according to economic, environmental and social criteria

1

Linking the Integrated Economic-Environmental Modeling (IEEM) Platform with geospatial ecosystem services modeling (IEEM+ESM) shows natural capital's contribution to economic development

Teaming up with **Artificial Intelligence for Ecosystem Services (ARIES)**, we are developing customized tools for Latin America and the Caribbean 

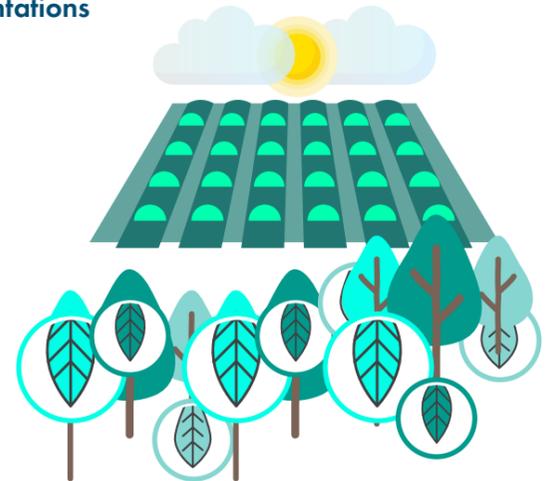
2

Here's an example in Guatemala:

We apply the IEEM+ESM approach to evaluating strategies to meeting the Sustainable Development Goals (SDG) 2 of Zero Hunger through expanding irrigated agriculture, and SDG 15 of Life on Land through expanding forest plantations

#2

#15

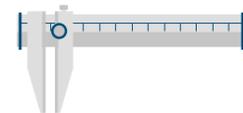


3

How does IEEM work?



Policy question: SDG's #2 & #15



Develop and calibrate IEEM



Run IEEM baseline projection and scenarios

Run baseline and scenario ecosystem service supply projections

Changes in Ecosystem Services Supply



**Authors:** Onil Banerjee, Martin Cicowiez, Kenneth J. Bagstad, Neville Crossman, Sebastian Dudek  
**Editor:** Darrel Perez  
 For more information on the IEEM Platform, contact:  
 Onil Banerjee  
 onilb@iadb.org

Copyright © 2019 Inter-American Development Bank. This work is licensed under a Creative Commons IGO 3.0 Attribution-NonCommercial-NoDerivatives (CC-IGO BY-NC-ND 3.0 IGO) license (<https://creativecommons.org/licenses/by-nc-nd/3.0/igo/legalcode>) and may be reproduced with attribution to the IDB and for any non-commercial purpose. No derivative work is allowed.

Any dispute related to the use of the works of the IDB that cannot be settled amicably shall be submitted to arbitration pursuant to the UNCITRAL rules. The use of the IDB's name for any purpose other than for attribution, and the use of IDB's logo shall be subject to a separate written license agreement between the IDB and the user and is not authorized as part of this CC-IGO license.

Note that link provided above includes additional terms and conditions of the license.

The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of the Inter-American Development Bank, its Board of Directors, or the countries they represent.

