HOW TO FOSTER TRANSFORMATIVE SOLUTIONS IN AGRICULTURE THROUGH THE WEF-BIODIVERSITY NEXUS?

DIANA MORENO 1, ANDREA GARCÍA 2, TATIANA SILVA 2, ALEXANDER RINCÓN 3, JORGE AMADOR 2, OLGA LUCÍA HERNÁNDEZ 4

1 National University of Colombia, Transnational Centre for Just Transitions in Energy, Climate and Sustainability (TRAJECTS), Colombia; 2 Alexander von Humboldt Biological Resources Research Institute, Colombia; 3 National University of Colombia, Economics Schools, Colombia; 4 Basque Centre for Climate Change - BC3, Adaptation Lab, Spain

TRAJECTS
Transnational Centre for Just Transitions in Energy, Climate & Sustainability

INTRODUCTION

The expanded Water-Energy-Food-Biodiversity nexus is a key research area exploring the intersection of agriculture and environmental conservation. It seeks to understand how cultural constructs shape food provision landscapes. This holistic approach integrates WEF-Biodiversity elements, recognizing their interconnection and impact on changes in Socioecological Systems.

METHODOLOGY

Participatory research in the Siecha River micro-watershed, Guasca, Colombia, involved local stakeholders to collaboratively define key variables in agricultural transformation. Workshops and field visits explored sustainability transitions within the WEF-Biodiversity nexus across four dimensions: (1) Natural environment use, (2) Well-being and governance, (3) Benefits from the environment, and (4) Biodiversity conservation. Tools like "The Little House" and "Relationships between the Nexus elements" were used for primary data collection.

RESULTS

Findings revealed that the rapid shift to agro-industrial activities has disrupted ecosystem services and weakened the inhabitants' connection with nature. Despite facing socio-cultural and economic challenges that impact local identity and labour relations, the inhabitants still value the health and well-being benefits nature provides.

DISCUSSION

Community recognises the importance of cultural services, such as education and traditional ecological knowledge, which foster the territory's willingness to embrace sustainability transitions. Pollination is particularly valued as a crucial ecosystem service.

CONCLUSION

Given the complexity of defining the WEF-Biodiversity nexus, a holistic approach to sustainable agricultural transitions is crucial. This goes beyond technical and economic factors, focusing on the interconnectedness of human-nature relationships and their impact on the well-being of territories.

Federal Foreign Office

IDEA UNAL

DAAD

Global Centres

Deutscher Akademischer Austauschdienst
German Academic Exchange Service