Contribution ID: **184** Type: **Oral Presentation**

AI-integrated GIS decision support tool for local net-zero transition - example of AgrivoltNavigator

Integrating spatial and environmental data into actionable plans remains a key challenge for municipalities and local stakeholders seeking evidence-based pathways to achieve climate and sustainability goals. This study presents AgriVolt Navigator (https://agrivoltnavigator.iges.jp/), a GIS-based decision-support tool designed to assist local communities in developing net-zero strategies, demonstrated here for the Hachinohe city-region in northern Japan. The tool combines spatial data analysis with AI-assisted functionality to explore and identify optimal sites for renewable energy deployment. The Hachinohe case study illustrates how AI-GIS integration can generate actionable insights to guide local climate and energy planning. The presentation will highlight the tool's core features, AI-driven capabilities, and strategies for engaging multiple stakeholders. While AgriVolt Navigator is developed for a specific geographic and thematic context, its design and methodology are broadly applicable, offering strong potential for adaptation to other regions and diverse sustainability challenges.

Presenter: Dr BATSAIKHAN, Anudari (Institute for Global Environmental Strategies (IGES))