

ABSTRAK

Perubahan iklim menuntut entitas pemerintahan untuk mengelola dampak aktivitas perkantoran terhadap lingkungan, terutama melalui identifikasi jejak karbon. Penelitian ini menganalisis emisi karbon Gedung Djuanda I dan II menggunakan pendekatan *mixed method* dengan design penelitian *sequential explanatory designs* yang mengombinasikan metode kuantitatif estimasi jejak karbon dari rumus utama IPCC serta metode kualitatif berdasarkan wawancara dan observasi lapangan yang mengelaborasi terkait kebijakan *eco-office*.

Temuan penelitian menunjukkan konsumsi listrik sebagai sumber emisi terbesar (80,43%), diikuti transportasi pegawai (14,25%) dan kendaraan dinas (4,33%). Sebaliknya, pengelolaan sampah menghasilkan jejak karbon negatif, menandakan efektivitas sistem pemilahan dan pengolahan limbah. Upaya mitigasi yang telah dilaksanakan meliputi pemanfaatan PLTS, pengaturan konsumsi listrik, serta penyediaan fasilitas kendaraan listrik dan layanan shuttle bagi pegawai. Digitalisasi dokumen juga diterapkan untuk mengurangi penggunaan kertas, sementara limbah cair dikelola melalui STP.

Meskipun telah banyak langkah dilakukan, tantangan tetap ada dalam efisiensi energi, transportasi, dan pengelolaan limbah. Oleh karena itu, penelitian merekomendasikan penggunaan jejak karbon sebagai salah satu dasar pembuatan kebijakan, intensifikasi efisiensi energi dan transisi ke energi terbarukan, optimalisasi transportasi, pengurangan penggunaan kertas dan air, pengelolaan limbah ramah lingkungan serta penguatan regulasi internal guna meningkatkan efektivitas kebijakan *eco-office*.

Kata kunci : jejak karbon, *eco-office*, efisiensi energi, transportasi ramah lingkungan, pengelolaan limbah.

ABSTRACT

Climate change demands that government entities manage the environmental impact of office activities, primarily through the identification of carbon footprints. This study analyzes carbon emissions from Djuanda I and II Buildings using a mixed-method approach with a sequential explanatory design, combining quantitative methods—estimating carbon footprint using the IPCC core formula—and qualitative methods through interviews and field observations to elaborate on eco-office policies.

The findings indicate that electricity consumption is the largest source of emissions (80.43%), followed by employee transportation (14.25%) and official vehicles (4.33%). In contrast, waste management results in a negative carbon footprint, indicating the effectiveness of waste segregation and processing systems. Mitigation efforts that have been implemented include the use of solar panels, regulation of electricity consumption, provision of electric vehicle facilities and shuttle services for employees. Document digitization has also been applied to

reduce paper usage, while wastewater is managed through a sewage treatment plant (STP).

Although many measures have been taken, challenges remain in energy efficiency, transportation, and waste management. Therefore, the study recommends using carbon footprint data as a basis for policymaking, intensifying energy efficiency and the transition to renewable energy, optimizing transportation, reducing paper and water usage, implementing environmentally friendly waste management, and strengthening internal regulations to enhance the effectiveness of eco-office policies.

Keywords: carbon footprint, eco-office, energy efficiency, environmentally friendly transportation, waste management.