

# The Role of Artificial Intelligence in Achieving the Sustainable Development Goals

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**Abstract:** Artificial Intelligence is useful in supplying cutting-edge instruments and approaches to protect ecosystems, conserve biodiversity, and advance sustainable development for the present and the future. Businesses can now assess, forecast, and optimize their environmental effect in ways that are not possible with old approaches thanks to artificial intelligence. Additionally, AI can enhance energy efficiency, accelerate the creation of new and sustainable materials, accelerate technical advancements, and inform catastrophe response. This Technology is also being utilized to help cut down on the startling amount of food waste (between 30 and 40 percent is thrown out in the United States alone). This demonstrates AI's critical role in advancing SDG11 (Sustainable Cities and Communities), yet it also has conflicting outcomes. The efficiency and accessibility of secure housing, reliable transportation systems, and green public areas are just a few of the many ways AI is affecting society. Technology and sustainability can be combined to improve progress because it makes data gathering and management easier and allows for tracking and forecasting.

**Keywords:** Artificial Intelligence, Sustainable Development Goals, Renewable Energy, Smart Cities, Climate Action, Environmental Conservation, Automation, Ethical AI, Machine Learning, Data Analytics