

Analytical Brief: Generative AI for UNDP – SDG Q&A; Demo

This analytical brief presents the outcomes of a demonstration project applying Generative AI for retrieval-augmented question answering (RAG) on the United Nations Sustainable Development Goals (SDGs). The prototype leverages LangChain, ChromaDB, and Hugging Face/OpenAI models to explore how Natural Language Processing (NLP) can enhance accessibility of global development information.

Methodology

The system uses Hugging Face embeddings to index SDG goal texts into a ChromaDB vector store. Queries are matched against the stored documents and passed to a language model with a custom prompt: “You are a UNDP research assistant. Context: {context} ... Answer:”. Fallback logic ensures resilience: the pipeline first attempts OpenAI GPT-4o-mini, and automatically falls back to Hugging Face Flan-T5 (free Inference API) if credits are unavailable.

Sample Findings

Question	Answer
Which SDG talks about reducing inequality?	Goal 10: Reduce inequality within and among countries.
What is the goal related to climate change?	Goal 13: Take urgent action to combat climate change and its impacts.
How does SDG address gender equality?	Goal 5: Achieve gender equality and empower all women and girls.

Implications for UNDP

This demo highlights the potential of Generative AI to make development knowledge more accessible, support evidence-based policymaking, and enhance digital inclusion. With further scaling, such tools could enable multilingual access, bias evaluation, and integration with workflow automation tools (Microsoft Power Automate, Teams, SharePoint). The project demonstrates alignment with SDG 10 (Reduced Inequalities), SDG 5 (Gender Equality), and SDG 13 (Climate Action), showcasing how AI can directly support UNDP’s mission.

Next steps include: expanding dataset coverage to all SDG targets, adding fairness evaluation modules, and connecting outputs with Microsoft 365 workflows for broader UNDP adoption.