Smart City Sustainability Assistant – Customer Journey Map

# Policy Assistant

**1. Policy Assistant**

**Step: Upload policy document**

* The user uploads a long policy PDF.
* They interact via a web interface using the Streamlit app, from their office or home.
* Positive: The upload is simple and fast.
* Negative: The document is long and hard to read.
* Opportunity: Use AI to extract and summarize text.
* Goal: Help me understand this faster.

**Step: View extracted text**

* They see raw text extracted from the document.
* Interact with the displayed content in the browser.
* Positive: They can verify actual content.
* Negative: The structure might be messy.
* Opportunity: Highlight key sections automatically.
* Goal: Help me find relevant information easily.

**Step: Click summarize**

* They request an AI summary of the document.
* Interact via a button linked to the FLAN-T5 model.
* Positive: Saves time by shortening content.
* Negative: May miss detailed insights.
* Opportunity: Allow adjusting summary length/detail.
* Goal: Help me get meaningful summaries quickly.

# Citizen Tools

**Step: Describe issue**

* A citizen reports an environmental concern.
* They use a text input box from home or while out.
* Positive: They feel heard.
* Negative: Not sure if the report will be acted on.
* Opportunity: Send confirmation or escalation status.
* Goal: Help me report problems easily.

**Step: Ask question or use voice input**

* They ask a sustainability-related question via text or voice.
* The system uses speech recognition.
* Positive: Voice feels natural.
* Negative: Sometimes voice input fails.
* Opportunity: Add retry or feedback options.
* Goal: Help me get answers fast.

**Step: Request eco tips**

* The user wants practical eco-friendly suggestions.
* They click a button to generate tips using AI.
* Positive: Tips are actionable.
* Negative: Might seem generic.
* Opportunity: Personalize based on location or habits.
* Goal: Help me live more sustainably.

**Step: Translate answer**

* The user chooses to view the answer in their local language.
* The app uses Google Translate to convert the answer.
* Positive: More accessible.
* Negative: Some translations may be inaccurate.
* Opportunity: Add local dialects or allow user corrections.
* Goal: Help me understand in my language.

# City Analytics:

**Step: Upload KPI CSV**

* The city officer uploads a data file for sustainability tracking.
* They interact with a CSV uploader in Streamlit.
* Positive: Uploading is fast.
* Negative: File must match a specific format.
* Opportunity: Provide a sample CSV template.
* Goal: Help me get my data in easily.

**Step: View chart**

* The app visualizes data trends over time.
* A line graph is auto-generated.
* Positive: Trends are clearly shown.
* Negative: Outliers are hard to interpret.
* Opportunity: Add explanations for dips or spikes.
* Goal: Help me interpret the data correctly.

**Step: Forecast next value**

* The officer uses AI to predict future metrics.
* Forecast is generated using linear regression.
* Positive: Helps in proactive planning.
* Negative: Users may not trust the "black box".
* Opportunity: Show confidence or explain AI logic.
* Goal: Help me plan better with predictions.

**Step: Detect anomalies**

* The app highlights unusual data points.
* Uses Isolation Forest for anomaly detection.
* Positive: Spots issues early.
* Negative: Some may be false positives.
* Opportunity: Let users adjust sensitivity.
* Goal: Help me catch issues early.