Sensitivity analysis is a critical technique used to evaluate how variations in input parameters, such as weights assigned to factors like internet access or mobile penetration, impact the Digital Accessibility Index (DAI) scores for villages. By systematically perturbing these weights and observing the resulting changes in the index, sensitivity analysis identifies whether the DAI is overly reliant on specific parameters, ensuring the methodology remains stable and reliable. This process enhances the robustness of the DAI by validating the chosen weights, highlighting key influential factors, and addressing uncertainties in data or weight assignments. By confirming that small changes in weights do not lead to disproportionate shifts in scores, sensitivity analysis builds confidence in the index’s consistency, making it a trustworthy tool for policymakers to prioritize digital infrastructure investments and drive equitable access across Indian villages.