

Using location data to open 10,000 LPG distribution centres to reach 50 Million BPL Women.

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Abstract

Cooking on a chulha (clay cook stove) is equivalent to smoking 400 cigarettes a day.

Women in large parts of rural India today usually cook on a chulha, because the nearest LPG center is just too far away. To solve this, the Ministry of Petroleum and Natural Gas partnered with India's 3 oil marketing companies to open 10,000 new LPG distribution centers.

The Ministry's goal was to reach the people who need connections most, rather than opening centers in India's wealthy or urban areas. How could they quickly figure out which locations would reach the most people in need and have the greatest impact?

To solve this problem, we combined data from OMCs internal systems, sourced external data and created an optimization algorithm that would pin point specific villages across the country where these LPG centers should be opened so that they are economically viable while reaching the people who need them the most.

Each of the 600,000+ villages in the country were ranked on a number of parameters using their location characteristics such that they can serve the largest number of people in need while maintaining accessibility and a profitable market for the entrepreneur setting up the center.
