



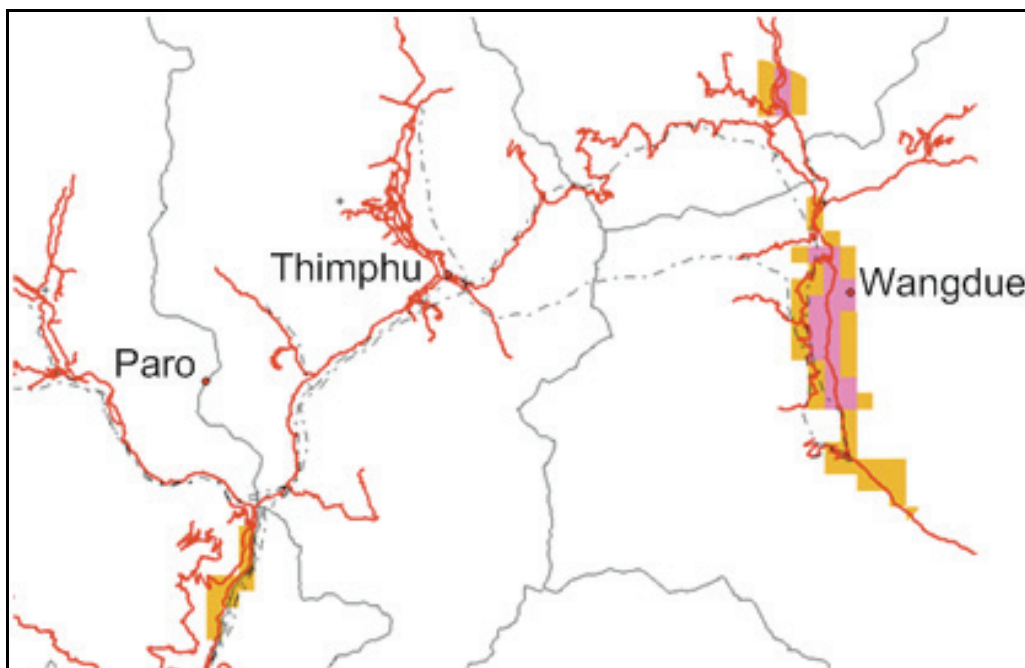
## Success Stories:

### USAID Supports Bhutan Renewable Energy Exploration

The USAID SARI/Energy Program supported collaborative activities between the Royal Government of Bhutan and the National Renewable Energy Laboratory (NREL), Boulder, Colorado, to explore solar and wind power potential in the country. As a first step in this collaboration, NREL developed solar and wind resource data and maps for Bhutan, which identified the most resource rich areas of the country. The data products were consolidated in a Geospatial Toolkit with geographic and political features to consider in tandem with resource data for potential development sites.

NREL provided technical training on the resource data and how they can be used for renewable energy planning to a number of engineers and government officials in Bhutan in late March 2009. The training included an overview of how to use the solar and wind resource maps and data sets that had recently been developed for Bhutan, and how to incorporate these data into NREL's Micropower Optimization Model known as HOMER, particularly for rural electrification.

A significant outcome of the training was a strong interest to explore large-scale grid-wind energy development in Bhutan to supplement their hydropower resources. As a result, NREL conducted a preliminary site screening analysis for solar and wind power development potential in Bhutan. The analysis identified potential wind and solar development sites based on resource availability and infrastructure accessibility, and estimated the power production potential where these sites were to be developed. The results of the analysis were released as an NREL technical report for use by the Royal Government of Bhutan and as a reference for other interested organizations.



**Wind resource in the vicinity of Thimphu**