

## **Workshop on Solar and Wind Energy Resource Assessment**

The workshop will focus on the activities of SWERA (Solar and Wind Energy Resource Assessment) in Brazil. SWERA is an UNEP project, with co-financing from GEF, created to promote the utilization of the renewable forms of solar and wind energy by removing barriers created by the lack of information and by supporting more informed decision-making, science-and-technology based policy that will ultimately increase investors confidence and interest in renewable energy. Its goal is to survey the solar and wind energy resources in various parts of the world and to evaluate the feasibility of using these resources as renewable energy forms for the sustained development of those areas. SWERA is also aimed at transforming the ability of target countries to assess the technical, economic, and environmental potential for large-scale investments in solar and wind energy facilities. Brazil is one of the 14 target countries where SWERA activities are taking place. This workshop will present the current status of SWERA activities in Brazil with the aim of disseminating its major objectives and products

### **Swera-Brazil Geospatial Toolkit**

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Brazil has participated actively in the United National Environment Programme's "Solar and Wind Resource Assessment" (SWERA) project, a large-scale undertaking to create and disseminate high quality data on solar and wind energy resources and catalyze investment in sustainable energy systems. A key element of the SWERA project is making its data products widely available and easily accessible to decision-makers. Toward this end, the U.S. National Renewable Energy Laboratory (NREL) has developed a "Geospatial Toolkit" that allows users to view SWERA data in map form and conduct simple spatial analysis with it.

Under the SWERA project, NREL has worked closely with Brazil's Instituto Nacional de Pesquisas Espaciais (INPE) to refine and validate high-resolution solar and wind datasets and collect a variety of useful geographic and socio-economic information, and subsequently to integrate this data into a GeoSpatial Toolkit for Brazil. The toolkit uses ArcObjects, a map-based software application, that can be used for decision making and policy analysis as well as identifying potential wind and solar energy projects. Geospatial Toolkit users can conduct a variety of simple analysis, such as locating good wind regimes close to transmission lines and identifying areas with good solar resources that meet certain project siting criteria.

The Geospatial Toolkit has been tested and developed for use on the Windows 2000 and XP operating systems. It can be downloaded directly from the SWERA website: <http://swera.unep.net/swera/index.php>.