

INVESTMENT OPPORTUNITIES IN LATIN AMERICA

SUITABILITY MAPS FOR GRID-CONNECTED AND OFF-GRID SOLAR AND WIND PROJECTS

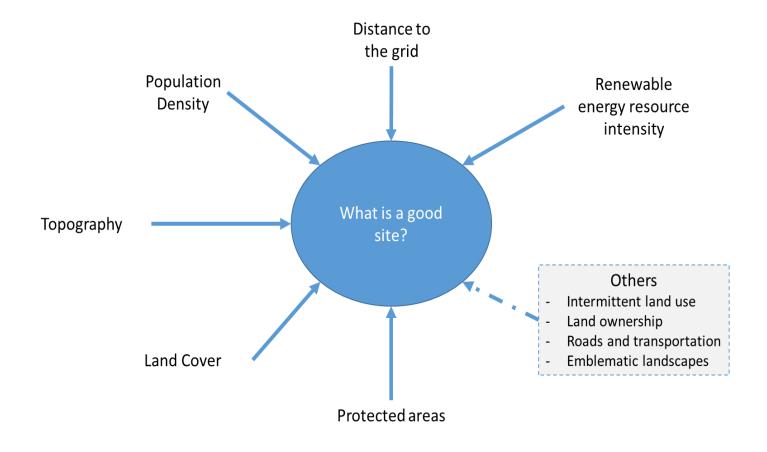




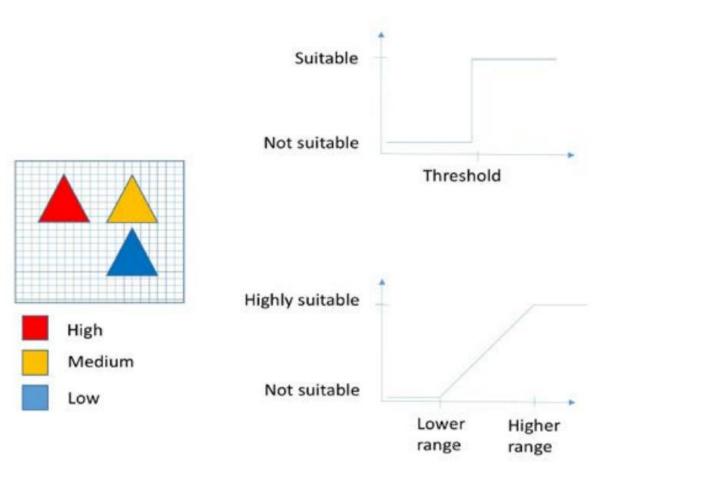
What is a good site?

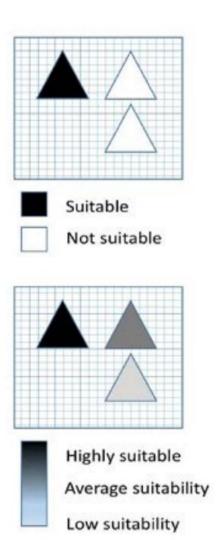


It will depend on the context!

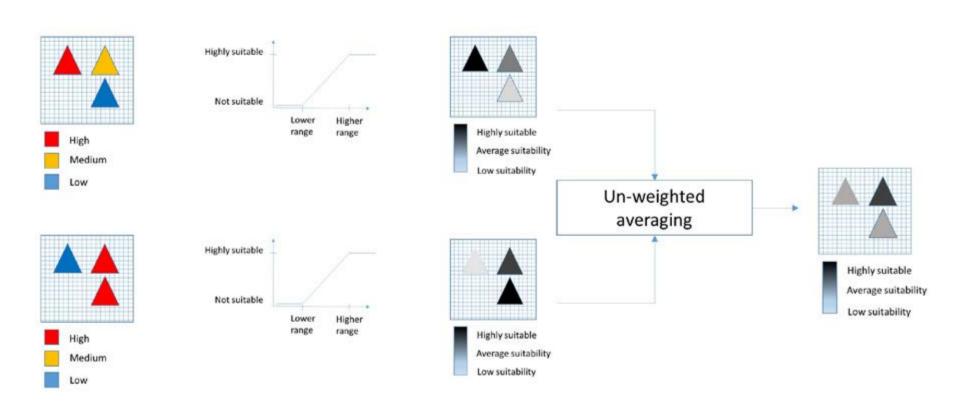


How to find the perfect spot? Decision making – exclusion vs suiability





How to find the perfect spot – 2 parameters



Wind parameters

Dimension	Min score (0%) at	Max score (100%) at
Wind speed at 100 m (m/s)	4.5	7 and more
Grid distance - centralised (km)	75, 100 and 150	0
Population density - centralised (persons/km2)	500	0
Slope (%)	20	0
Land cover (exclusion)	Forests + water bodies and water bodies only	Other categories
Protected areas (exclusion)	O for protected areas	1 outside
Altitude (exclusion)	0 above 2000 m above sea level	1 below 2000 m above sea level

Dimension	Min score (0%) at	Max score (100%) at
Wind speed at 100 m (m/s)	4.5	7 and more
Grid distance – decentralised (km)	0	75, 100 and 150 and max above those distances
Population density – decentralised (persons/km²)	0	Maximum above 0
Slope (%)	20	0
Land cover (exclusion)	Forests + water bodies and water bodies only	Other categories
Protected areas (exclusion)	O for protected areas	1 outside
Altitude (exclusion)	0 above 2000 m above sea level	1 below

Solar parameters

Dimension	Min score (0%) at	Max score (100%) at
Yearly global irradiation (kWh/m²)	1500	2100 and more
Grid distance - centralised (km)	75, 100 and 150	0
Population density – centralised (persons/km²)	500	0
Slope (%)	35	0
Land cover (exclusion)	Forests + water bodies and water bodies only	Other categories
Protected areas (exclusion)	O for protected areas	1 outside

Dimension	Min score (0%) at	Max score (100%) at
Yearly global irradiation (kWh/m²)	1500	2100 and more
Grid distance – decentralised (km)	0	75, 100 and 150 km and maximum above those distances
Population density – decentralised (persons/km2)	0	Maximum above 0
Slope (%)	35	0
Land cover (exclusion)	Forests + water bodies and water bodies only	Other categories
Protected areas (exclusion)	N/A	1 outside

Dealing with complexity to help decision making



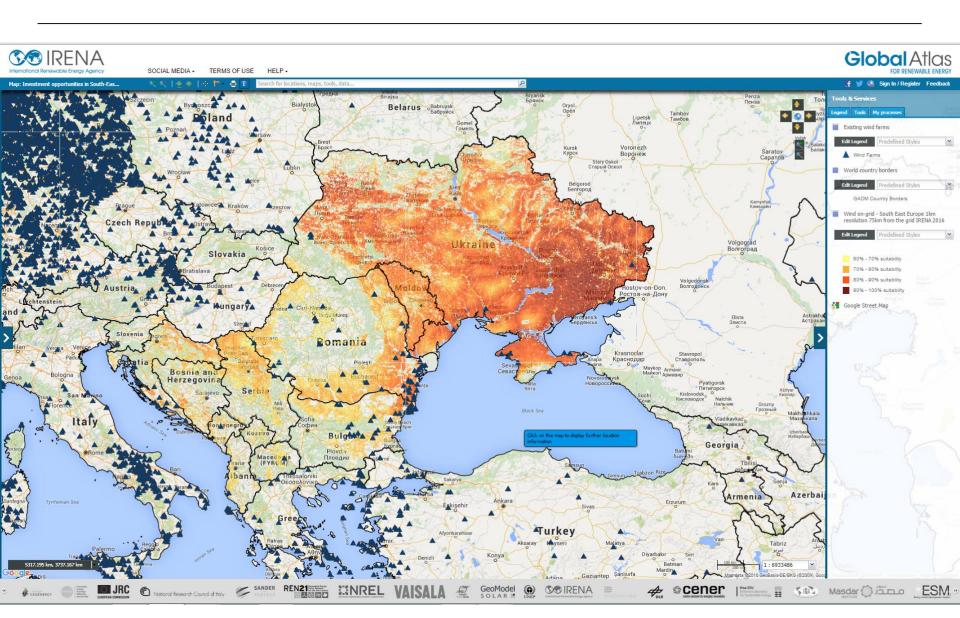




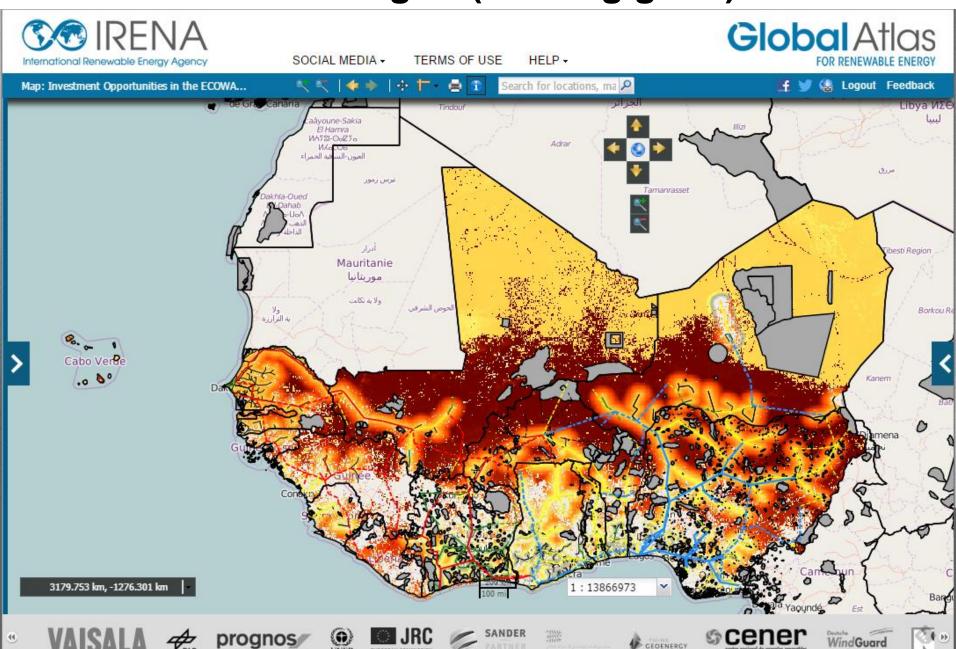
Example for wind



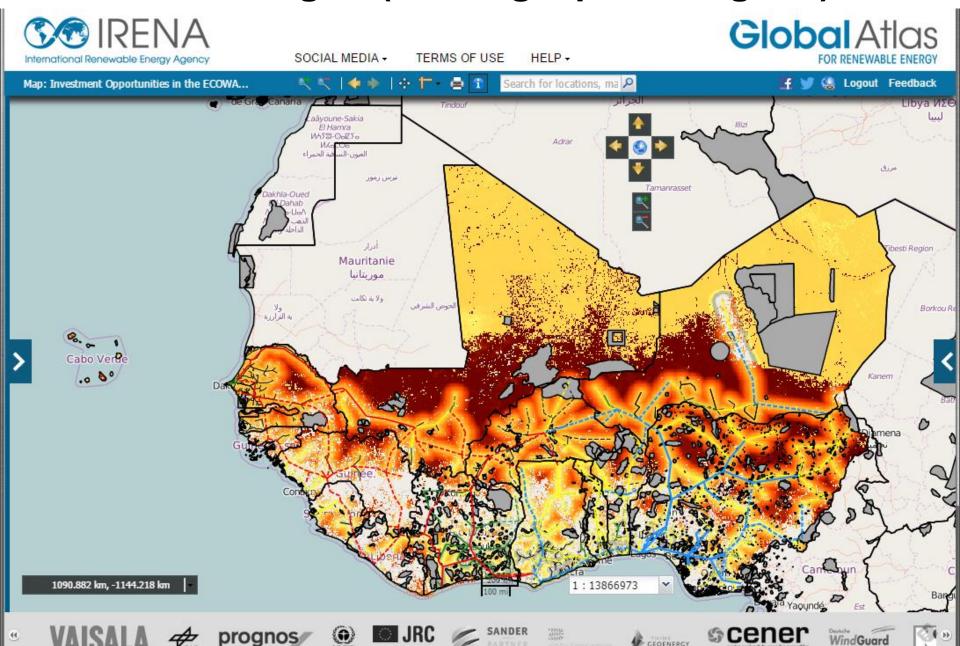
Example for wind



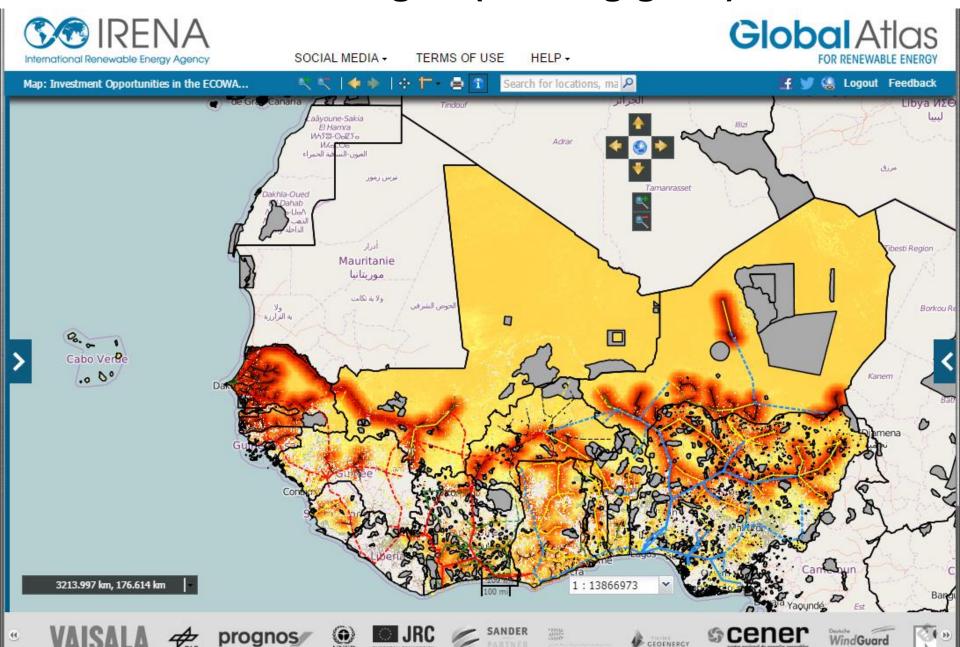
Solar Off-grid (existing grids)



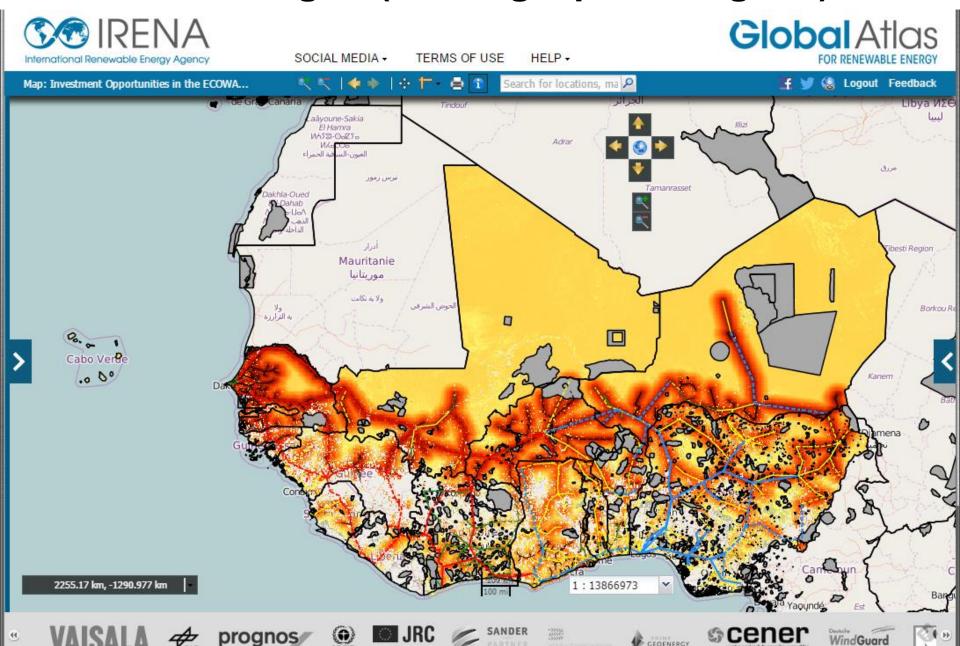
Solar Off-grid (existing + planned grids)



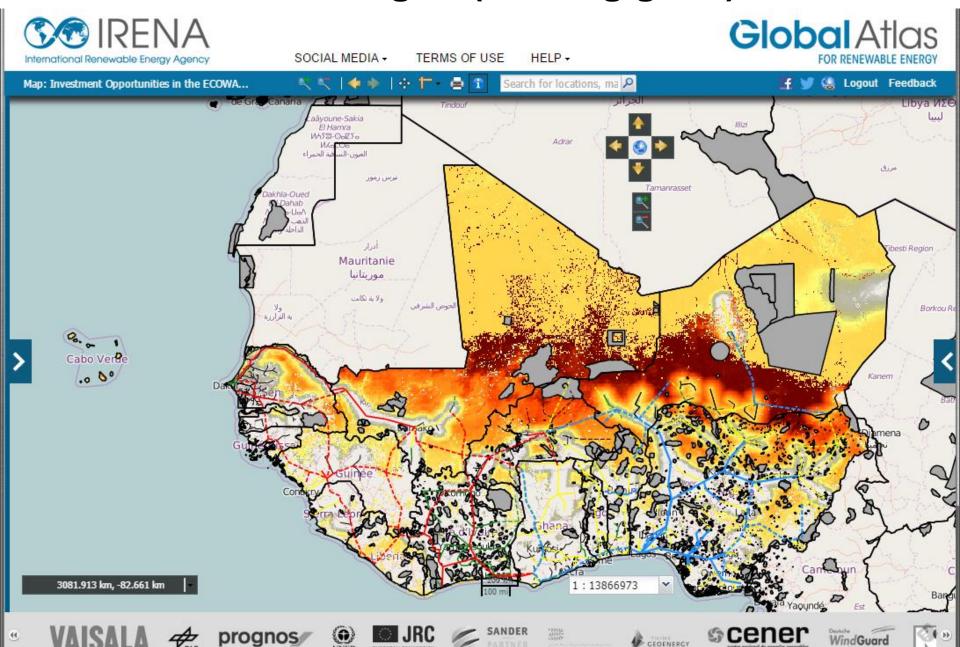
Solar On-grid (existing grids)



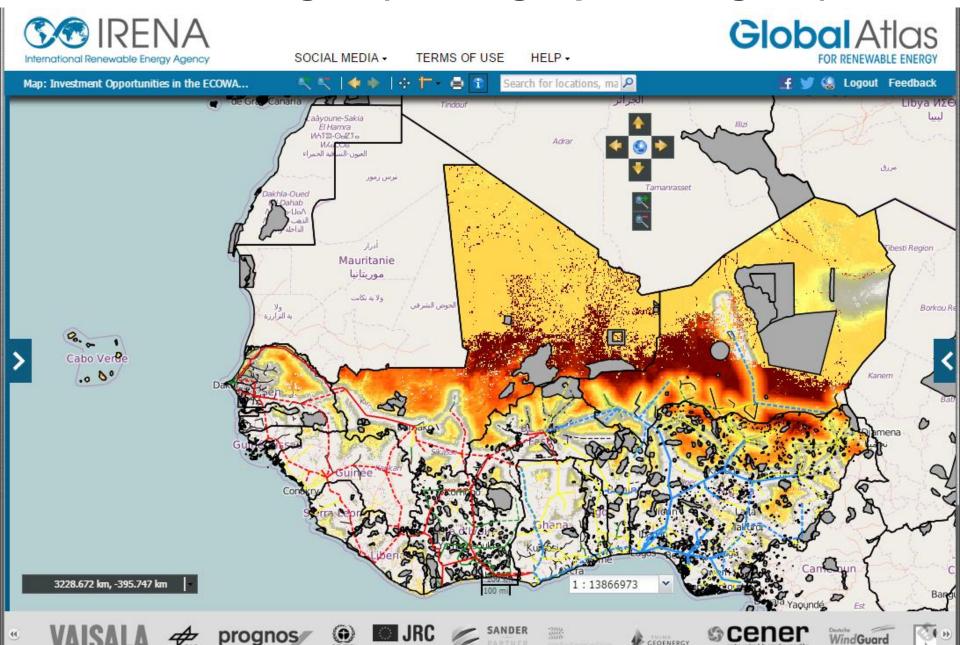
Solar On-grid (existing + planned grids)



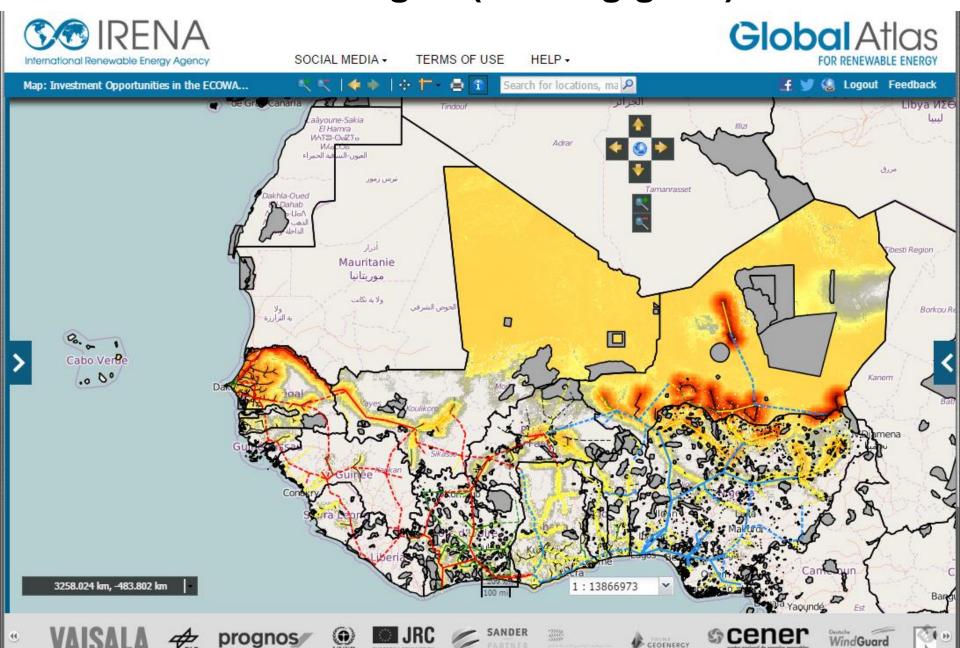
Wind Off-grid (existing grids)



Wind Off-grid (existing + planned grids)



Wind On-grid (existing grids)



Wind On-grid (existing + planned grids)

