



**Table-3: Approximate size of Wind turbines, their annual mean speed and utilization**

Type	Annual Mean wind Speed (m/s)	Utilization
Small Scale (0.025-10 kW)	2.5-4.0	Mechanical pumping battery charger, lighting and television etc.
Medium Scale (10-100 kW)	4.0-5.0	Pumping, cold storage, lighting etc.
Large scale (>100kW)	>5.0	Grid connected purpose

**CONCLUSIONS**

From Table 2 and Fig 1 & 2, we see that above 4 m/s the wind speed exists for 4882 hrs, which is 57 % time of the whole round the year and during this time energy can generate 138.9657 kWh/m<sup>2</sup>. The annual mean

$$\text{wind speed } V = \frac{\sum v \times h}{\sum h} = 4.6 \text{ m/s, maximum}$$

frequency is 1474 h at 4 m/s and maximum energy is 24510.94 w/m<sup>2</sup> at 8 m/s

From the weibull function curve (Fig.3) and velocity duration curve(Fig.3) and the wind generator of 10-100 kW capacity will generate electricity about 55% time of the whole year at St. Martin's Island.

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